

2021 Index

IEEE Transactions on Parallel and Distributed Systems

Vol. 32

This index covers all technical items—papers, correspondence, reviews, etc.—that appeared in this periodical during 2021, and items from previous years that were commented upon or corrected in 2021. Departments and other items may also be covered if they have been judged to have archival value.

The Author Index contains the primary entry for each item, listed under the first author's name. The primary entry includes the coauthors' names, the title of the paper or other item, and its location, specified by the publication abbreviation, year, month, and inclusive pagination. The Subject Index contains entries describing the item under all appropriate subject headings, plus the first author's name, the publication abbreviation, month, and year, and inclusive pages. Note that the item title is found only under the primary entry in the Author Index.

AUTHOR INDEX

A

- Abad, P.**, *see* Prieto, P., *TPDS Dec. 2021 2983-2995*
- Abdelrazek, M.**, *see* Xia, X., *TPDS Jan. 2021 31-44*
- Abdelrazek, M.**, *see* Xia, X., *TPDS Feb. 2021 281-294*
- Abdulah, S.**, *see* Salvana, M.L.O., *TPDS Nov. 2021 2719-2733*
- Abellan, J.L.**, *see* Dong, S., *TPDS Oct. 2021 2448-2463*
- Abubaker, N.**, Acer, S., and Aykanat, C., True Load Balancing for Matricized Tensor Times Khatri-Rao Product; *TPDS Aug. 2021 1974-1986*
- Acer, S.**, *see* Karsavuran, M.O., *TPDS Jan. 2021 147-159*
- Acer, S.**, *see* Abubaker, N., *TPDS Aug. 2021 1974-1986*
- Adnan, M.A.**, *see* Toha, T.R., *TPDS April 2021 931-942*
- Aerts, K.**, *see* Schildermans, S., *TPDS Oct. 2021 2557-2570*
- Aggarwal, V.**, *see* Zhang, G., *TPDS Dec. 2021 3024-3037*
- Agostini, N.B.**, *see* Dong, S., *TPDS Oct. 2021 2448-2463*
- Ahmad, N.**, Yilmaz, B., and Unat, D., A Split Execution Model for SpTRSV; *TPDS Nov. 2021 2809-2822*
- Ahmadi, A.**, Manganiello, F., Khademi, A., and Smith, M.C., A Parallel Jacobi-Embedded Gauss-Seidel Method; *TPDS June 2021 1452-1464*
- Ahmadian, S.**, Salkhordeh, R., Mutlu, O., and Asadi, H., ETICA: Efficient Two-Level I/O Caching Architecture for Virtualized Platforms; *TPDS Oct. 2021 2415-2433*
- Al Badawi, A.**, Veeravalli, B., Lin, J., Xiao, N., Kazuaki, M., and Khin Mi Mi, A., Multi-GPU Design and Performance Evaluation of Homomorphic Encryption on GPU Clusters; *TPDS Feb. 2021 379-391*
- Al Islam, A.B.M.A.**, *see* Toha, T.R., *TPDS April 2021 931-942*
- Albahar, H.**, *see* Zhao, N., *TPDS April 2021 918-930*
- Alistarh, D.**, *see* Li, S., *TPDS July 2021 1725-1739*
- Allen, T.**, *see* Ge, R., *TPDS Oct. 2021 2464-2476*
- Ambati, P.**, Bashir, N., Irwin, D., and Shenoy, P., Modeling and Analyzing Waiting Policies for Cloud-Enabled Schedulers; *TPDS Dec. 2021 3081-3100*
- Anwar, A.**, *see* Zhao, N., *TPDS April 2021 918-930*
- Ao, Y.**, *see* Li, M., *TPDS July 2021 1842-1853*
- Aral, A.**, and Brandic, I., Learning Spatiotemporal Failure Dependencies for Resilient Edge Computing Services; *TPDS July 2021 1578-1590*
- Asadi, H.**, *see* Ahmadian, S., *TPDS Oct. 2021 2415-2433*
- Asri, M.**, Malhotra, D., Wang, J., Biros, G., John, L.K., and Gerstlauer, A., Hardware Accelerator Integration Tradeoffs for High-Performance Computing: A Case Study of GEMM Acceleration in N-Body Methods; *TPDS Aug. 2021 2035-2048*
- Aykanat, C.**, *see* Karsavuran, M.O., *TPDS Jan. 2021 147-159*
- Aykanat, C.**, *see* Abubaker, N., *TPDS Aug. 2021 1974-1986*
- Bai, Y.**, Li, C., Lin, Z., Wu, Y., Miao, Y., Liu, Y., and Xu, Y., Efficient Data Loader for Fast Sampling-Based GNN Training on Large Graphs; *TPDS Oct. 2021 2541-2556*
- Balaji, P.**, Zhai, J., and Si, M., Guest Editorial; *TPDS July 2021 1511-1512*
- Balaji, P.**, *see* Zambre, R., *TPDS Dec. 2021 3038-3052*
- Balewski, J.**, *see* Oyama, Y., *TPDS July 2021 1641-1652*
- Bao, J.**, *see* Zhang, T., *TPDS Feb. 2021 457-469*
- Bao, Y.**, *see* Peng, Y., *TPDS Aug. 2021 1947-1960*
- Barika, M.**, Garg, S., Zomaya, A.Y., and Ranjan, R., Online Scheduling Technique To Handle Data Velocity Changes in Stream Workflows; *TPDS Aug. 2021 2115-2130*
- Barker, K.**, *see* Tan, C., *TPDS Dec. 2021 2880-2892*
- Barrientos, R.J.**, *see* Navarro, C.A., *TPDS Jan. 2021 72-84*
- Bashir, N.**, *see* Ambati, P., *TPDS Dec. 2021 3081-3100*
- Battula, S.K.**, O'Reilly, M.M., Garg, S., and Montgomery, J., A Generic Stochastic Model for Resource Availability in Fog Computing Environments; *TPDS April 2021 960-974*
- Beck, A.C.S.**, *see* Schwarzrock, J., *TPDS July 2021 1713-1724*
- Beheshti, A.**, *see* Wang, S., *TPDS Nov. 2021 2838-2851*
- Ben-Nun, T.**, *see* Li, S., *TPDS July 2021 1725-1739*
- Benini, L.**, *see* Glaser, F., *TPDS March 2021 633-648*
- Berzins, M.**, *see* Zambre, R., *TPDS Dec. 2021 3038-3052*
- Beschastnikh, I.**, *see* Shayan, M., *TPDS July 2021 1513-1525*
- Besta, M.**, Domke, J., Schneider, M., Konieczny, M., Girolamo, S.D., Schneider, T., Singla, A., and Hoefler, T., High-Performance Routing With Multipathing and Path Diversity in Ethernet and HPC Networks; *TPDS April 2021 943-959*
- Besta, M.**, *see* de Fine Licht, J., *TPDS May 2021 1014-1029*
- Bhowmick, S.**, *see* Chapp, D., *TPDS Dec. 2021 2936-2952*
- Bi, J.**, *see* Yu, H., *TPDS Sept. 2021 2202-2215*
- Biros, G.**, *see* Asri, M., *TPDS Aug. 2021 2035-2048*
- Blakeney, C.**, Li, X., Yan, Y., and Zong, Z., Parallel Blockwise Knowledge Distillation for Deep Neural Network Compression; *TPDS July 2021 1765-1776*
- Bobineau, C.**, *see* Nguyen, T.T.Q., *TPDS Feb. 2021 342-354*
- Boroujeni, M.**, Ghodsi, M., and Seddighin, S., Improved MPC Algorithms for Edit Distance and Ulam Distance; *TPDS Nov. 2021 2764-2776*
- Brandic, I.**, *see* Aral, A., *TPDS July 2021 1578-1590*
- Buddhika, T.**, Pallickara, S.L., and Pallickara, S., Pebbles: Leveraging Sketches for Processing Voluminous, High Velocity Data Streams; *TPDS Aug. 2021 2005-2020*
- Burger, M.**, and Kleine, J., Critique of "Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility" by SCC Team From ETH Zurich; *TPDS Nov. 2021 2627-2630*
- Butt, A.R.**, *see* Zhao, N., *TPDS April 2021 918-930*
- Buyya, R.**, *see* Kardani-Moghaddam, S., *TPDS March 2021 514-526*
- Buyya, R.**, *see* Ilager, S., *TPDS May 2021 1044-1056*

C

- Baek, W.**, *see* Han, M., *TPDS May 2021 1117-1132*
- Bai, W.**, *see* Cheng, Y., *TPDS July 2021 1802-1814*

B

- Cai, G.**, *see* Tang, L., *TPDS Feb. 2021 355-366*
- Cai, J.**, *see* Luo, J., *TPDS May 2021 1238-1255*
- Cai, W.**, *see* Li, Y., *TPDS Feb. 2021 426-440*
- Cano, J.**, *see* Dong, S., *TPDS Oct. 2021 2448-2463*
- Cao, B.**, *see* Li, W., *TPDS May 2021 1146-1160*
- Cao, D.**, *see* Gong, X., *TPDS March 2021 500-513*
- Cao, J.**, *see* Ding, T., *TPDS April 2021 855-866*
- Cao, J.**, *see* Sahni, Y., *TPDS May 2021 1133-1145*

- Cao, Z.**, and Markowitch, O., Comment on “Circuit Ciphertext-Policy Attribute-Based Hybrid Encryption With Verifiable Delegation in Cloud Computing” *TPDS Feb. 2021* 392-393
- Cappello, F.**, see Zhao, K., *TPDS July 2021* 1677-1689
- Cardaci, A.**, see Mencagli, G., *TPDS Nov. 2021* 2748-2763
- Carrasco, R.**, see Navarro, C.A., *TPDS Jan. 2021* 72-84
- Cataldo, R.**, Fernandes, R., Martin, K.J.M., Silveira, J., Sanchez, G., Sepulveda, J., Marcon, C., and Diguët, J., Subutai: Speeding Up Legacy Parallel Applications Through Data Synchronization; *TPDS May 2021* 1102-1116
- Cetin, G.S.**, Savas, E., and Sunar, B., Homomorphic Sorting With Better Scalability; *TPDS April 2021* 760-771
- Chandramowlishwaran, A.**, see Zambre, R., *TPDS Dec. 2021* 3038-3052
- Chang, B.**, see Chen, Y., *TPDS June 2021* 1465-1478
- Chapp, D.**, Tan, N., Bhowmick, S., and Taufer, M., Identifying Degree and Sources of Non-Determinism in MPI Applications Via Graph Kernels; *TPDS Dec. 2021* 2936-2952
- Chattopadhyay, A.**, see Gupta, N., *TPDS March 2021* 575-586
- Chauhan, A.K.**, see Gupta, N., *TPDS March 2021* 575-586
- Chen, D.**, Yuan, H., Hu, S., Wang, Q., and Wang, C., BOSSA: A Decentralized System for Proofs of Data Retrieval and Replication; *TPDS April 2021* 786-798
- Chen, D.**, see Li, Q., *TPDS July 2021* 1866-1877
- Chen, F.**, see Xia, X., *TPDS Jan. 2021* 31-44
- Chen, F.**, see Xia, X., *TPDS Feb. 2021* 281-294
- Chen, F.**, see Li, B., *TPDS May 2021* 1210-1223
- Chen, G.**, Cheng, B., and Wang, D., Constructing Completely Independent Spanning Trees in Data Center Network Based on Augmented Cube; *TPDS March 2021* 665-673
- Chen, G.**, see Wang, Z., *TPDS Dec. 2021* 2953-2969
- Chen, H.**, see Di, B., *TPDS May 2021* 1161-1177
- Chen, H.**, see Sun, W., *TPDS Nov. 2021* 2623-2626
- Chen, J.**, see Tang, L., *TPDS Feb. 2021* 355-366
- Chen, J.**, see Zhao, K., *TPDS July 2021* 1677-1689
- Chen, J.**, Fang, J., Liu, W., and Yang, C., BALS: Blocked Alternating Least Squares for Parallel Sparse Matrix Factorization on GPUs; *TPDS Sept. 2021* 2291-2302
- Chen, J.**, see Chen, L., *TPDS Dec. 2021* 3066-3080
- Chen, K.**, see Zhao, N., *TPDS April 2021* 918-930
- Chen, K.**, see Li, W., *TPDS Aug. 2021* 2021-2034
- Chen, L.**, Feng, Y., Li, B., and Li, B., A Case for Pricing Bandwidth: Sharing Datacenter Networks With Cost Dominant Fairness; *TPDS May 2021* 1256-1269
- Chen, L.**, see Li, H., *TPDS July 2021* 1828-1841
- Chen, L.**, Zhu, J., Deng, Y., Li, Z., Chen, J., Jiang, X., Yin, S., Wei, S., and Liu, L., An Elastic Task Scheduling Scheme on Coarse-Grained Reconfigurable Architectures; *TPDS Dec. 2021* 3066-3080
- Chen, L.Y.**, see Han, R., *TPDS July 2021* 1591-1602
- Chen, L.Y.**, see Han, R., *TPDS Sept. 2021* 2231-2247
- Chen, N.**, Quan, S., Zhang, S., Qian, Z., Jin, Y., Wu, J., Li, W., and Lu, S., Cuttlefish: Neural Configuration Adaptation for Video Analysis in Live Augmented Reality; *TPDS April 2021* 830-841
- Chen, Q.**, see Pang, P., *TPDS Feb. 2021* 441-456
- Chen, Q.**, see Cui, W., *TPDS June 2021* 1307-1321
- Chen, S.**, see Zhang, C., *TPDS Nov. 2021* 2631-2634
- Chen, W.**, see Qiu, X., *TPDS May 2021* 1085-1101
- Chen, W.**, see Yi-Wen, W., *TPDS Sept. 2021* 2352-2366
- Chen, X.**, see Tan, Y., *TPDS Jan. 2021* 214-228
- Chen, X.**, see Duan, M., *TPDS Jan. 2021* 59-71
- Chen, X.**, see Fan, W., *TPDS Nov. 2021* 2793-2808
- Chen, Y.**, see Xiao, G., *TPDS Jan. 2021* 131-146
- Chen, Y.**, Zheng, Q., Yan, Z., and Liu, D., QShield: Protecting Outsourced Cloud Data Queries With Multi-User Access Control Based on SGX; *TPDS Feb. 2021* 485-499
- Chen, Y.**, Chang, B., Yang, C., and Chiueh, T., A High-Throughput FPGA Accelerator for Short-Read Mapping of the Whole Human Genome; *TPDS June 2021* 1465-1478
- Chen, Y.**, see Peng, Y., *TPDS Aug. 2021* 1947-1960
- Chen, Y.**, Lin, L., Li, B., Wang, Q., and Zhang, Q., Silhouette: Efficient Cloud Configuration Exploration for Large-Scale Analytics; *TPDS Aug. 2021* 2049-2061
- Chen, Z.**, see Zhao, K., *TPDS July 2021* 1677-1689
- Chen, Z.**, see Zhang, F., *TPDS Sept. 2021* 2262-2276
- Cheng, B.**, see Chen, G., *TPDS March 2021* 665-673
- Cheng, D.**, Li, S., Zhang, H., Xia, F., and Zhang, Y., Why Dataset Properties Bound the Scalability of Parallel Machine Learning Training Algorithms; *TPDS July 2021* 1702-1712
- Cheng, D.**, see Rang, W., *TPDS Oct. 2021* 2571-2581
- Cheng, J.**, see Zhao, Y., *TPDS Nov. 2021* 2691-2704
- Cheng, L.**, Wang, Y., Liu, Q., Epema, D.H., Liu, C., Mao, Y., and Murphy, J., Network-Aware Locality Scheduling for Distributed Data Operators in Data Centers; *TPDS June 2021* 1494-1510
- Cheng, W.**, see Zhang, T., *TPDS Feb. 2021* 457-469
- Cheng, X.**, see Qu, X., *TPDS Aug. 2021* 2074-2085
- Cheng, Y.**, Li, D., Guo, Z., Jiang, B., Geng, J., Bai, W., Wu, J., and Xiong, Y., Accelerating End-to-End Deep Learning Workflow With Codesign of Data Preprocessing and Scheduling; *TPDS July 2021* 1802-1814
- Cheng, Y.**, Fan, Z., Mai, J., Wu, Y., Xu, P., Yan, Y., Fu, Z., and Liang, Y., Critique of “Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility” by SCC Team From Peking University; *TPDS Nov. 2021* 2643-2645
- Chiueh, T.**, see Chen, Y., *TPDS June 2021* 1465-1478
- Cho, S.**, Kim, W., Oh, S., Kim, C., Koh, K., and Nam, B., Failure-Atomic Byte-Addressable R-tree for Persistent Memory; *TPDS March 2021* 601-614
- Chou, J.**, see Sun, W., *TPDS Nov. 2021* 2623-2626
- Chu, X.**, see Shi, S., *TPDS Aug. 2021* 1903-1917
- Cicirelli, F.**, Giordano, A., and Mastroianni, C., Analysis of Global and Local Synchronization in Parallel Computing; *TPDS May 2021* 988-1000
- Cinnamon, M.**, see Liu, D., *TPDS Nov. 2021* 2639-2642
- Croce, D.**, see Merani, M.L., *TPDS June 2021* 1340-1352
- Cui, H.**, see Lin, W., *TPDS May 2021* 1072-1084
- Cui, J.**, see Li, H., *TPDS Oct. 2021* 2477-2490
- Cui, L.**, see Fan, W., *TPDS Nov. 2021* 2793-2808
- Cui, W.**, Chen, Q., Zhao, H., Wei, M., Tang, X., and Guo, M., E²bird: Enhanced Elastic Batch for Improving Responsiveness and Throughput of Deep Learning Services; *TPDS June 2021* 1307-1321

D

- D'Ambrosio, D.**, see Giordano, A., *TPDS Feb. 2021* 470-484
- Dai, H.**, see Zheng, Z., *TPDS Jan. 2021* 160-173
- Dai, S.**, see Sun, H., *TPDS June 2021* 1437-1451
- Danelutto, M.**, see Mencagli, G., *TPDS Nov. 2021* 2748-2763
- de Fine Licht, J.**, Besta, M., Meierhans, S., and Hoefler, T., Transformations of High-Level Synthesis Codes for High-Performance Computing; *TPDS May 2021* 1014-1029
- de Hoop, M.V.**, see Shi, J., *TPDS Nov. 2021* 2609-2622
- de Oliveira, C.C.**, see Schwarzrock, J., *TPDS July 2021* 1713-1724
- De Rango, A.**, see Giordano, A., *TPDS Feb. 2021* 470-484
- Debusschere, V.**, see Nguyen, T.T.Q., *TPDS Feb. 2021* 342-354
- Decouchant, J.**, see Kozhaya, D., *TPDS Sept. 2021* 2277-2290
- Deng, R.H.**, see Liang, X., *TPDS March 2021* 587-600
- Deng, S.**, Zhang, C., Li, C., Yin, J., Dustdar, S., and Zomaya, A.Y., Burst Load Evacuation Based on Dispatching and Scheduling In Distributed Edge Networks; *TPDS Aug. 2021* 1918-1932
- Deng, Y.**, see Zhu, B., *TPDS Aug. 2021* 1987-2004
- Deng, Y.**, see Chen, L., *TPDS Dec. 2021* 3066-3080
- Di, B.**, Sun, J., Chen, H., and Li, D., Efficient Buffer Overflow Detection on GPU; *TPDS May 2021* 1161-1177
- Di, S.**, see Zhao, K., *TPDS July 2021* 1677-1689
- Didona, D.**, see Spirovska, K., *TPDS March 2021* 527-542
- Diguët, J.**, see Cataldo, R., *TPDS May 2021* 1102-1116
- Ding, C.**, see Pandey, S., *TPDS Nov. 2021* 2646-2660

- Ding, T.**, Qian, S., Cao, J., Xue, G., Zhu, Y., Yu, J., and Li, M., MO-Tree: An Efficient Forwarding Engine for Spatiotemporal-Aware Pub/Sub Systems; *TPDS April 2021* 855-866
- Ding, X.**, see Schildermans, S., *TPDS Oct. 2021* 2557-2570
- Ding, Z.**, see Wang, S., *TPDS Jan. 2021* 98-115
- Djigal, H.**, Feng, J., Lu, J., and Ge, J., IPPTS: An Efficient Algorithm for Scientific Workflow Scheduling in Heterogeneous Computing Systems; *TPDS May 2021* 1057-1071
- Domke, J.**, see Besta, M., *TPDS April 2021* 943-959
- Dong, P.**, see Ning, Z., *TPDS June 2021* 1277-1292
- Dong, S.**, Sun, Y., Agostini, N.B., Karimi, E., Lowell, D., Zhou, J., Cano, J., Abellan, J.L., and Kaeli, D., Spartan: A Sparsity-Adaptive Framework to Accelerate Deep Neural Network Training on GPUs; *TPDS Oct. 2021* 2448-2463
- Dong, Z.**, Yang, K., Fisher, N., and Liu, C., Tardiness Bounds for Sporadic Gang Tasks Under Preemptive Global EDF Scheduling; *TPDS Dec. 2021* 2867-2879
- Dryden, N.**, see Oyama, Y., *TPDS July 2021* 1641-1652
- Dryden, N.**, see Li, S., *TPDS July 2021* 1725-1739
- Du, J.**, Zhu, X., Shen, M., Du, Y., Lu, Y., Xiao, N., and Liao, X., Model Parallelism Optimization for Distributed Inference Via Decoupled CNN Structure; *TPDS July 2021* 1665-1676
- Du, L.**, see Zhang, X., *TPDS Nov. 2021* 2823-2837
- Du, X.**, see Zhang, C., *TPDS July 2021* 1740-1752
- Du, X.**, see Zhang, F., *TPDS Sept. 2021* 2303-2320
- Du, X.**, see Zhang, F., *TPDS Sept. 2021* 2321-2337
- Du, X.**, see Zhang, F., *TPDS Sept. 2021* 2262-2276
- Du, Y.**, see Du, J., *TPDS July 2021* 1665-1676
- Du, Z.**, see Li, H., *TPDS Oct. 2021* 2594-2605
- Duan, M.**, Liu, D., Chen, X., Liu, R., Tan, Y., and Liang, L., Self-Balancing Federated Learning With Global Imbalanced Data in Mobile Systems; *TPDS Jan. 2021* 59-71
- Dustdar, S.**, see Deng, S., *TPDS Aug. 2021* 1918-1932

E

- El-Ghazawi, T.**, see Kayraklioglu, E., *TPDS June 2021* 1409-1424
- Elfadel, I.M.**, see Karn, R.R., *TPDS March 2021* 674-691
- Epema, D.H.**, see Cheng, L., *TPDS June 2021* 1494-1510
- Espinosa, A.**, see Hernandez-Juarez, D., *TPDS Oct. 2021* 2434-2447
- Esteves-Verissimo, P.**, see Kozhaya, D., *TPDS Sept. 2021* 2277-2290

F

- Fahad, M.**, see Khaleghzadeh, H., *TPDS March 2021* 543-560
- Fais, A.**, see Mencagli, G., *TPDS Nov. 2021* 2748-2763
- Fan, J.**, see Zhao, G., *TPDS March 2021* 728-742
- Fan, J.**, see Guo, Y., *TPDS Dec. 2021* 2921-2935
- Fan, W.**, Xiao, F., Chen, X., Cui, L., and Yu, S., Efficient Virtual Network Embedding of Cloud-Based Data Center Networks into Optical Networks; *TPDS Nov. 2021* 2793-2808
- Fan, Z.**, see Cheng, Y., *TPDS Nov. 2021* 2643-2645
- Fang, J.**, see Huang, W., *TPDS Jan. 2021* 16-30
- Fang, J.**, see Chen, J., *TPDS Sept. 2021* 2291-2302
- Fang, L.**, see Ge, C., *TPDS July 2021* 1653-1664
- Favry, E.**, see Kayraklioglu, E., *TPDS June 2021* 1409-1424
- Feng, B.**, see Zhao, L., *TPDS Oct. 2021* 2524-2540
- Feng, C.**, see Li, W., *TPDS May 2021* 1146-1160
- Feng, J.**, see Djigal, H., *TPDS May 2021* 1057-1071
- Feng, X.**, see Ge, R., *TPDS Oct. 2021* 2464-2476
- Feng, Y.**, see Chen, L., *TPDS May 2021* 1256-1269
- Fernandes, R.**, see Cataldo, R., *TPDS May 2021* 1102-1116
- Figueiredo, M.**, Navarro, J.P., Sandes, E.F.O., Teodoro, G., and Melo, A.C.M.A., Parallel Fine-Grained Comparison of Long DNA Sequences in Homogeneous and Heterogeneous GPU Platforms With Pruning; *TPDS Dec. 2021* 3053-3065
- Fisher, N.**, see Dong, Z., *TPDS Dec. 2021* 2867-2879

- Formisano, A.**, Gentilini, R., and Vella, F., Scalable Energy Games Solvers on GPUs; *TPDS Dec. 2021* 2970-2982
- Fu, X.**, see Yang, S., *TPDS Feb. 2021* 295-314
- Fu, Z.**, see Cheng, Y., *TPDS Nov. 2021* 2643-2645
- Fujita, K.**, see Gill, A., *TPDS Aug. 2021* 2101-2114
- Fung, C.**, see Shayan, M., *TPDS July 2021* 1513-1525

G

- Gainaru, A.**, Goglin, B., Honore, V., and Pallez, G., Profiles of Upcoming HPC Applications and Their Impact on Reservation Strategies; *TPDS May 2021* 1178-1190
- Galindo, C.**, Nishida, N., Silva, J., and Tamarit, S., Reversible CSP Computations; *TPDS June 2021* 1425-1436
- Gan, L.**, see Li, M., *TPDS March 2021* 708-727
- Gao, L.**, see Uddin, M.P., *TPDS July 2021* 1526-1538
- Gao, L.**, see Zhou, T., *TPDS Aug. 2021* 2062-2073
- Gao, S.**, see Zhang, P., *TPDS June 2021* 1293-1306
- Gao, X.**, Liu, R., and Kaushik, A., Hierarchical Multi-Agent Optimization for Resource Allocation in Cloud Computing; *TPDS March 2021* 692-707
- Garg, S.**, see Battula, S.K., *TPDS April 2021* 960-974
- Garg, S.**, see Barika, M., *TPDS Aug. 2021* 2115-2130
- Garvin, T.**, see Liu, D., *TPDS Nov. 2021* 2639-2642
- Ge, C.**, Liu, Z., Fang, L., Ling, H., Zhang, A., and Yin, C., A Hybrid Fuzzy Convolutional Neural Network Based Mechanism for Photovoltaic Cell Defect Detection With Electroluminescence Images; *TPDS July 2021* 1653-1664
- Ge, J.**, see Djigal, H., *TPDS May 2021* 1057-1071
- Ge, J.**, see Jiang, T., *TPDS Dec. 2021* 2996-3010
- Ge, R.**, Feng, X., Allen, T., and Zou, P., The Case for Cross-Component Power Coordination on Power Bounded Systems; *TPDS Oct. 2021* 2464-2476
- Ge, T.**, see Zhang, J., *TPDS Aug. 2021* 2086-2100
- Geng, J.**, see Cheng, Y., *TPDS July 2021* 1802-1814
- Geng, T.**, Li, A., Wang, T., Wu, C., Li, Y., Shi, R., Wu, W., and Herbordt, M., O3BNN-R: An Out-of-Order Architecture for High-Performance and Regularized BNN Inference; *TPDS Jan. 2021* 199-213
- Geng, T.**, see Tan, C., *TPDS Dec. 2021* 2880-2892
- Geng, X.**, see Zhang, H., *TPDS Jan. 2021* 1-15
- Gentilini, R.**, see Formisano, A., *TPDS Dec. 2021* 2970-2982
- Genton, M.G.**, see Salvana, M.L.O., *TPDS Nov. 2021* 2719-2733
- Georgalas, N.**, see Wang, J., *TPDS Jan. 2021* 242-253
- Gerstlauer, A.**, see Asri, M., *TPDS Aug. 2021* 2035-2048
- Ghods, M.**, see Boroujeni, M., *TPDS Nov. 2021* 2764-2776
- Ghosh, P.**, Krishnamoorthy, S., and Kalyanaraman, A., PaKman: A Scalable Algorithm for Generating Genomic Contigs on Distributed Memory Machines; *TPDS May 2021* 1191-1209
- Giap, Q.H.**, see Nguyen, T.T.Q., *TPDS Feb. 2021* 342-354
- Gill, A.**, Lalith, M., Poledna, S., Hori, M., Fujita, K., and Ichimura, T., High-Performance Computing Implementations of Agent-Based Economic Models for Realizing 1:1 Scale Simulations of Large Economies; *TPDS Aug. 2021* 2101-2114
- Giordano, A.**, De Rango, A., Rongo, R., D'Ambrosio, D., and Spataro, W., Dynamic Load Balancing in Parallel Execution of Cellular Automata; *TPDS Feb. 2021* 470-484
- Giordano, A.**, see Cicirelli, F., *TPDS May 2021* 988-1000
- Giolamo, S.D.**, see Besta, M., *TPDS April 2021* 943-959
- Giolamo, S.D.**, see Li, S., *TPDS July 2021* 1725-1739
- Glaser, F.**, Tagliavini, G., Rossi, D., Haugou, G., Huang, Q., and Benini, L., Energy-Efficient Hardware-Accelerated Synchronization for Shared-L1-Memory Multiprocessor Clusters; *TPDS March 2021* 633-648
- Glines, F.W.**, see Grete, P., *TPDS Jan. 2021* 85-97
- Goglin, B.**, see Gainaru, A., *TPDS May 2021* 1178-1190
- Gokturk, G.**, and Kaya, K., Boosting Parallel Influence-Maximization Kernels for Undirected Networks With Fusing and Vectorization; *TPDS May 2021* 1001-1013
- Gong, L.**, Lin, H., Li, Z., Qian, F., Li, Y., Ma, X., and Liu, Y., Systematically Landing Machine Learning onto Market-Scale Mobile Malware Detection; *TPDS July 2021* 1615-1628

- Gong, L.**, Wang, C., Li, X., and Zhou, X., Improving HW/SW Adaptability for Accelerating CNNs on FPGAs Through A Dynamic/Static Co-Reconfiguration Approach; *TPDS July 2021 1854-1865*
- Gong, S.**, Zhang, Y., and Yu, G., Accelerating Large-Scale Prioritized Graph Computations by Hotness Balanced Partition; *TPDS April 2021 746-759*
- Gong, X.**, see Li, Y., *TPDS Feb. 2021 426-440*
- Gong, X.**, Cao, D., Li, Y., Liu, X., Li, Y., Zhang, J., and Li, T., A Thread Level SLO-Aware I/O Framework for Embedded Virtualization; *TPDS March 2021 500-513*
- Gonzalez, M.**, and Morancho, E., Multi-GPU Parallelization of the NAS Multi-Zone Parallel Benchmarks; *TPDS Jan. 2021 229-241*
- Gregorio, J.A.**, see Prieto, P., *TPDS Dec. 2021 2983-2995*
- Grete, P.**, Glines, F.W., and O'Shea, B.W., K-Athena: A Performance Portable Structured Grid Finite Volume Magnetohydrodynamics Code; *TPDS Jan. 2021 85-97*
- Grundy, J.**, see Xia, X., *TPDS Feb. 2021 281-294*
- Grundy, J.C.**, see Xia, X., *TPDS Jan. 2021 31-44*
- Gu, M.**, see Zhu, B., *TPDS Aug. 2021 1987-2004*
- Gu, R.**, Zuo, Z., Jiang, X., Yin, H., Wang, Z., Wang, L., Li, X., and Huang, Y., Towards Efficient Large-Scale Interprocedural Program Static Analysis on Distributed Data-Parallel Computation; *TPDS April 2021 867-883*
- Gu, R.**, see Wang, Z., *TPDS Dec. 2021 2953-2969*
- Guan, H.**, Shen, X., and Krim, H., An Automatic Synthesizer of Advising Tools for High Performance Computing ; *TPDS Feb. 2021 330-341*
- Guan, N.**, see Wang, Y., *TPDS June 2021 1322-1339*
- Guan, X.**, see Zhou, T., *TPDS Aug. 2021 2062-2073*
- Guo, D.**, see Luo, L., *TPDS Nov. 2021 2705-2718*
- Guo, M.**, see Pang, P., *TPDS Feb. 2021 441-456*
- Guo, M.**, see Zhou, Q., *TPDS May 2021 1030-1043*
- Guo, M.**, see Cui, W., *TPDS June 2021 1307-1321*
- Guo, S.**, see Wang, X., *TPDS Feb. 2021 411-425*
- Guo, S.**, see Zhou, Q., *TPDS April 2021 900-917*
- Guo, S.**, see Zhou, Q., *TPDS May 2021 1030-1043*
- Guo, S.**, see Ning, Z., *TPDS June 2021 1277-1292*
- Guo, X.**, see Zhang, C., *TPDS July 2021 1740-1752*
- Guo, Y.**, Shan, H., Huang, S., Hwang, K., Fan, J., and Yu, Z., GML: Efficiently Auto-Tuning Flink's Configurations Via Guided Machine Learning; *TPDS Dec. 2021 2921-2935*
- Guo, Z.**, see Wang, Y., *TPDS June 2021 1322-1339*
- Guo, Z.**, see Cheng, Y., *TPDS July 2021 1802-1814*
- Gupta, N.**, Jati, A., Chauhan, A.K., and Chattopadhyay, A., PQC Acceleration Using GPUs: FrodoKEM, NewHope, and Kyber; *TPDS March 2021 575-586*
- Gupta, V.**, see Singh, A.K., *TPDS Dec. 2021 2893-2905*
- ## H
- Hadjsaid, N.**, see Nguyen, T.T.Q., *TPDS Feb. 2021 342-354*
- Han, M.**, Park, J., and Baek, W., Design and Implementation of a Criticality- and Heterogeneity-Aware Runtime System for Task-Parallel Applications; *TPDS May 2021 1117-1132*
- Han, R.**, Li, S., Wang, X., Liu, C.H., Xin, G., and Chen, L.Y., Accelerating Gossip-Based Deep Learning in Heterogeneous Edge Computing Platforms; *TPDS July 2021 1591-1602*
- Han, R.**, Li, D., Ouyang, J., Liu, C.H., Wang, G., Wu, D., and Chen, L.Y., Accurate Differentially Private Deep Learning on the Edge; *TPDS Sept. 2021 2231-2247*
- Han, W.**, see Zhang, C., *TPDS Nov. 2021 2631-2634*
- Hao, M.**, Zhang, W., Wang, Y., Lu, G., Wang, F., and Vasilakos, A.V., Fine-Grained Powercap Allocation for Power-Constrained Systems Based on Multi-Objective Machine Learning; *TPDS July 2021 1789-1801*
- Harrell, S.L.**, see Plale, B., *TPDS Nov. 2021 2607-2608*
- Harrington, P.**, see Oyama, Y., *TPDS July 2021 1641-1652*
- Hashemi, M.**, see Shahrouz, S., *TPDS Oct. 2021 2386-2399*
- Hassanzadeh-Nazarabadi, Y.**, Kupcu, A., and Ozkasap, O., LightChain: Scalable DHT-Based Blockchain; *TPDS Oct. 2021 2582-2593*
- Haugou, G.**, see Glaser, F., *TPDS March 2021 633-648*
- He, B.**, see Zhang, C., *TPDS July 2021 1740-1752*
- He, B.**, see Zhang, F., *TPDS Sept. 2021 2303-2320*
- He, B.**, see Zhang, F., *TPDS Sept. 2021 2321-2337*
- He, J.**, see Zhang, C., *TPDS Nov. 2021 2631-2634*
- He, L.**, see Zheng, Z., *TPDS Jan. 2021 160-173*
- He, L.**, see Huang, T., *TPDS July 2021 1552-1564*
- He, L.**, see Wu, W., *TPDS July 2021 1539-1551*
- He, Q.**, see Xia, X., *TPDS Jan. 2021 31-44*
- He, Q.**, see Xia, X., *TPDS Feb. 2021 281-294*
- He, Q.**, see Li, B., *TPDS May 2021 1210-1223*
- He, S.**, see Ye, Z., *TPDS Jan. 2021 116-130*
- He, W.**, see Xiao, G., *TPDS Jan. 2021 131-146*
- He, X.**, see Huang, W., *TPDS Jan. 2021 16-30*
- Herbordt, M.**, see Geng, T., *TPDS Jan. 2021 199-213*
- Hernandez-Juarez, D.**, Espinosa, A., Vazquez, D., Lopez, A.M., and Moure, J.C., 3D Perception With Slanted Stixels on GPU; *TPDS Oct. 2021 2434-2447*
- Herschlag, G.**, Lee, S., Vetter, J.S., and Randles, A., Analysis of GPU Data Access Patterns on Complex Geometries for the D3Q19 Lattice Boltzmann Algorithm; *TPDS Oct. 2021 2400-2414*
- Heymann, E.**, see Wong, A., *TPDS Feb. 2021 254-268*
- Hoefler, T.**, see Besta, M., *TPDS April 2021 943-959*
- Hoefler, T.**, see de Fine Licht, J., *TPDS May 2021 1014-1029*
- Hoefler, T.**, see Li, S., *TPDS July 2021 1725-1739*
- Hoisie, A.**, see Pandey, S., *TPDS Nov. 2021 2646-2660*
- Hong, W.**, see Mao, Y., *TPDS July 2021 1777-1788*
- Honore, V.**, see Gainaru, A., *TPDS May 2021 1178-1190*
- Hori, M.**, see Gill, A., *TPDS Aug. 2021 2101-2114*
- Hu, B.**, see Ning, Z., *TPDS June 2021 1277-1292*
- Hu, H.**, see Yu, H., *TPDS Sept. 2021 2202-2215*
- Hu, H.**, see Zhang, G., *TPDS Dec. 2021 3024-3037*
- Hu, J.**, see Wang, J., *TPDS Jan. 2021 242-253*
- Hu, J.**, see Li, H., *TPDS Oct. 2021 2594-2605*
- Hu, Q.**, see Qu, X., *TPDS Aug. 2021 2074-2085*
- Hu, S.**, see Chen, D., *TPDS April 2021 786-798*
- Hu, S.**, see Xie, G., *TPDS June 2021 1353-1368*
- Hu, W.**, see Wang, Z., *TPDS Dec. 2021 2953-2969*
- Hu, X.**, see Ning, Z., *TPDS June 2021 1277-1292*
- Hu, Y.**, see Liu, C., *TPDS July 2021 1603-1614*
- Hu, Z.**, Li, D., Zhang, D., Zhang, Y., and Peng, B., Optimizing Resource Allocation for Data-Parallel Jobs Via GCN-Based Prediction; *TPDS Sept. 2021 2188-2201*
- Huang, H.**, see Karn, R.R., *TPDS March 2021 674-691*
- Huang, H.**, see Song, D., *TPDS Oct. 2021 2509-2523*
- Huang, H.**, see Salvana, M.L.O., *TPDS Nov. 2021 2719-2733*
- Huang, J.**, see Sun, H., *TPDS June 2021 1437-1451*
- Huang, J.**, see Li, H., *TPDS Oct. 2021 2477-2490*
- Huang, K.**, Li, S., Huang, L., Tan, K., and Mei, H., Lewat: A Lightweight, Efficient, and Wear-Aware Transactional Persistent Memory System; *TPDS March 2021 649-664*
- Huang, K.**, see Zhang, C., *TPDS Nov. 2021 2631-2634*
- Huang, L.**, see Huang, K., *TPDS March 2021 649-664*
- Huang, L.**, see Zhao, G., *TPDS March 2021 728-742*
- Huang, L.**, see Zhao, G., *TPDS Nov. 2021 2777-2792*
- Huang, Q.**, see Glaser, F., *TPDS March 2021 633-648*
- Huang, S.**, see Guo, Y., *TPDS Dec. 2021 2921-2935*
- Huang, T.**, Lin, W., Wu, W., He, L., Li, K., and Zomaya, A.Y., An Efficiency-Boosting Client Selection Scheme for Federated Learning With Fairness Guarantee; *TPDS July 2021 1552-1564*
- Huang, T.**, see Li, H., *TPDS Oct. 2021 2594-2605*
- Huang, W.**, Fang, J., Wan, S., Xie, C., and He, X., Design and Evaluation of a Risk-Aware Failure Identification Scheme for Improved RAS in Erasure-Coded Data Centers; *TPDS Jan. 2021 16-30*
- Huang, Y.**, see Gu, R., *TPDS April 2021 867-883*
- Huang, Y.**, see Ouyang, L., *TPDS April 2021 815-829*
- Huang, Y.**, see Wang, Z., *TPDS Dec. 2021 2953-2969*
- Hwang, K.**, see Guo, Y., *TPDS Dec. 2021 2921-2935*

Hwang, T., *see* Zhang, J., *TPDS Aug. 2021 2086-2100*
Hwu, W., *see* Li, Q., *TPDS July 2021 1866-1877*

I

Ichimura, T., *see* Gill, A., *TPDS Aug. 2021 2101-2114*
Ilager, S., Ramamohanarao, K., and Buyya, R., Thermal Prediction for Efficient Energy Management of Clouds Using Machine Learning; *TPDS May 2021 1044-1056*
Ilic, A., *see* Nobre, R., *TPDS Sept. 2021 2160-2174*
Imran, M.A., *see* Li, W., *TPDS May 2021 1146-1160*
Interlandi, M., *see* Li, Y., *TPDS April 2021 842-854*
Irwin, D., *see* Ambati, P., *TPDS Dec. 2021 3081-3100*

J

Jackrel, J., *see* Schildermans, S., *TPDS Oct. 2021 2557-2570*
Janjic, V., *see* Yu, T., *TPDS May 2021 1224-1237*
Jannes, K., Lagaisse, B., and Joosen, W., OWebSync: Seamless Synchronization of Distributed Web Clients; *TPDS Sept. 2021 2338-2351*
Jati, A., *see* Gupta, N., *TPDS March 2021 575-586*
Ji, Y., *see* Sahni, Y., *TPDS May 2021 1133-1145*
Jiang, B., *see* Cheng, Y., *TPDS July 2021 1802-1814*
Jiang, C., *see* Wang, S., *TPDS Jan. 2021 98-115*
Jiang, G., *see* Zhao, Y., *TPDS Nov. 2021 2691-2704*
Jiang, H., *see* Tan, Y., *TPDS Jan. 2021 214-228*
Jiang, T., Meng, W., Yuan, X., Wang, L., Ge, J., and Ma, J., ReliableBox: Secure and Verifiable Cloud Storage With Location-Aware Backup; *TPDS Dec. 2021 2996-3010*
Jiang, X., *see* Gu, R., *TPDS April 2021 867-883*
Jiang, X., *see* Wang, Y., *TPDS June 2021 1322-1339*
Jiang, X., *see* Chen, L., *TPDS Dec. 2021 3066-3080*
Jiang, Y., *see* Zhu, B., *TPDS Aug. 2021 1987-2004*
Jiao, L., *see* Luo, J., *TPDS May 2021 1238-1255*
Jin, H., *see* Xia, X., *TPDS Jan. 2021 31-44*
Jin, H., *see* Zheng, Z., *TPDS Jan. 2021 160-173*
Jin, H., *see* Xia, X., *TPDS Feb. 2021 281-294*
Jin, H., *see* Li, B., *TPDS May 2021 1210-1223*
Jin, Y., *see* Chen, N., *TPDS April 2021 830-841*
Jin, Y., *see* Zhang, S., *TPDS Sept. 2021 2175-2187*
John, L.K., *see* Asri, M., *TPDS Aug. 2021 2035-2048*
Joosen, W., *see* Jannes, K., *TPDS Sept. 2021 2338-2351*

K

Kaeli, D., *see* Dong, S., *TPDS Oct. 2021 2448-2463*
Kalyanaraman, A., *see* Ghosh, P., *TPDS May 2021 1191-1209*
Karavanov, A., *see* Liu, D., *TPDS Nov. 2021 2639-2642*
Kardani-Moghaddam, S., Buyya, R., and Ramamohanarao, K., ADRL: A Hybrid Anomaly-Aware Deep Reinforcement Learning-Based Resource Scaling in Clouds; *TPDS March 2021 514-526*
Karimi, E., *see* Dong, S., *TPDS Oct. 2021 2448-2463*
Karn, R.R., Kudva, P., Huang, H., Suneja, S., and Elfadel, I.M., Cryptomining Detection in Container Clouds Using System Calls and Explainable Machine Learning; *TPDS March 2021 674-691*
Karsavuran, M.O., Acer, S., and Aykanat, C., Partitioning Models for General Medium-Grain Parallel Sparse Tensor Decomposition; *TPDS Jan. 2021 147-159*
Kaushik, A., *see* Gao, X., *TPDS March 2021 692-707*
Kaya, K., *see* Gokturk, G., *TPDS May 2021 1001-1013*
Kayraklioglu, E., Favry, E., and El-Ghazawi, T., A Machine-Learning-Based Framework for Productive Locality Exploitation; *TPDS June 2021 1409-1424*
Kazuaki, M., *see* Al Badawi, A., *TPDS Feb. 2021 379-391*
Keyes, D.E., *see* Salvana, M.L.O., *TPDS Nov. 2021 2719-2733*
Khademi, A., *see* Ahmadi, A., *TPDS June 2021 1452-1464*
Khajouei, A., *see* Moradi, N., *TPDS June 2021 1383-1394*

Khaleghzadeh, H., Fahad, M., Shahid, A., Manumachu, R.R., and Lastovetsky, A., Bi-Objective Optimization of Data-Parallel Applications on Heterogeneous HPC Platforms for Performance and Energy Through Workload Distribution; *TPDS March 2021 543-560*
Khan, A., *see* Suthakar, U., *TPDS June 2021 1395-1408*
Khazaei, H., *see* Lin, C., *TPDS March 2021 615-632*
Khin Mi Mi, A., *see* Al Badawi, A., *TPDS Feb. 2021 379-391*
Khochare, A., Krishnan, A., and Simmhan, Y., A Scalable Platform for Distributed Object Tracking Across a Many-Camera Network; *TPDS June 2021 1479-1493*
Kim, C., *see* Cho, S., *TPDS March 2021 601-614*
Kim, D., *see* Tran-Dang, H., *TPDS Oct. 2021 2491-2508*
Kim, K., Kim, Y., and Park, S., A Probabilistic Machine Learning Approach to Scheduling Parallel Loops With Bayesian Optimization; *TPDS July 2021 1815-1827*
Kim, W., *see* Cho, S., *TPDS March 2021 601-614*
Kim, Y., *see* Kim, K., *TPDS July 2021 1815-1827*
Kim, Y., *see* Sudo, Y., *TPDS Dec. 2021 3011-3023*
Kleine, J., *see* Burger, M., *TPDS Nov. 2021 2627-2630*
Koh, K., *see* Cho, S., *TPDS March 2021 601-614*
Kondraciuk, U., *see* Masiak, M., *TPDS Nov. 2021 2635-2638*
Konieczny, M., *see* Besta, M., *TPDS April 2021 943-959*
Kosar, T., *see* Nine, M.S.Q.Z., *TPDS Feb. 2021 269-280*
Kotlarska, I., *see* Masiak, M., *TPDS Nov. 2021 2635-2638*
Kozhaya, D., Decouchant, J., Rahlh, V., and Esteves-Verissimo, P., PISTIS: An Event-Triggered Real-Time Byzantine-Resilient Protocol Suite; *TPDS Sept. 2021 2277-2290*
Krim, H., *see* Guan, H., *TPDS Feb. 2021 330-341*
Krishnamoorthy, S., *see* Ghosh, P., *TPDS May 2021 1191-1209*
Krishnan, A., *see* Khochare, A., *TPDS June 2021 1479-1493*
Kshemkalyani, A.D., *see* Pozzetti, T., *TPDS April 2021 772-785*
Kuczynski, L., *see* Szustak, L., *TPDS Dec. 2021 2852-2866*
Kudva, P., *see* Karn, R.R., *TPDS March 2021 674-691*
Kumar, J., *see* Singh, A.K., *TPDS Dec. 2021 2893-2905*
Kupcu, A., *see* Hassanzadeh-Nazarabadi, Y., *TPDS Oct. 2021 2582-2593*
Kwok, R.Y.K., *see* Ning, Z., *TPDS June 2021 1277-1292*

L

Lagaisse, B., *see* Jannes, K., *TPDS Sept. 2021 2338-2351*
Laguna, I., *see* Miwa, S., *TPDS Jan. 2021 45-58*
Lai, J., *see* Yang, D., *TPDS July 2021 1892-1902*
Lalith, M., *see* Gill, A., *TPDS Aug. 2021 2101-2114*
Lastovetsky, A., *see* Khaleghzadeh, H., *TPDS March 2021 543-560*
Leather, H., *see* Yu, T., *TPDS May 2021 1224-1237*
Lee, J.Y.B., *see* Zhang, G., *TPDS Dec. 2021 3024-3037*
Lee, S., *see* Herschlag, G., *TPDS Oct. 2021 2400-2414*
Li, A., *see* Geng, T., *TPDS Jan. 2021 199-213*
Li, A., and Su, S., Accelerating Binarized Neural Networks via Bit-Tensor Cores in Turing GPUs; *TPDS July 2021 1878-1891*
Li, A., *see* Tan, C., *TPDS Dec. 2021 2880-2892*
Li, B., *see* Lin, W., *TPDS May 2021 1072-1084*
Li, B., He, Q., Chen, F., Jin, H., Xiang, Y., and Yang, Y., Auditing Cache Data Integrity in the Edge Computing Environment; *TPDS May 2021 1210-1223*
Li, B., *see* Chen, L., *TPDS May 2021 1256-1269*
Li, B., *see* Chen, L., *TPDS May 2021 1256-1269*
Li, B., *see* Chen, Y., *TPDS Aug. 2021 2049-2061*
Li, B., *see* Shi, S., *TPDS Aug. 2021 1903-1917*
Li, C., *see* Deng, S., *TPDS Aug. 2021 1918-1932*
Li, C., *see* Bai, Y., *TPDS Oct. 2021 2541-2556*
Li, D., *see* Di, B., *TPDS May 2021 1161-1177*
Li, D., *see* Cheng, Y., *TPDS July 2021 1802-1814*
Li, D., *see* Han, R., *TPDS Sept. 2021 2231-2247*
Li, D., *see* Hu, Z., *TPDS Sept. 2021 2188-2201*
Li, D., *see* Pandey, S., *TPDS Nov. 2021 2646-2660*
Li, F., *see* Yang, S., *TPDS Feb. 2021 295-314*

- Li, H.**, Li, Z., Li, K., Rellermeyer, J.S., Chen, L., and Li, K., SGDS_Tucker: A Novel Stochastic Optimization Strategy for Parallel Sparse Tucker Decomposition; *TPDS July 2021 1828-1841*
- Li, H.**, Yuan, H., Huang, J., Cui, J., Ma, X., Wang, S., Yoo, J., and Yu, P.S., Group Reassignment for Dynamic Edge Partitioning; *TPDS Oct. 2021 2477-2490*
- Li, H.**, Hu, J., Ran, L., Wang, Z., Lu, Q., Du, Z., and Huang, T., Decentralized Dual Proximal Gradient Algorithms for Non-Smooth Constrained Composite Optimization Problems; *TPDS Oct. 2021 2594-2605*
- Li, J.**, see Luo, J., *TPDS May 2021 1238-1255*
- Li, K.**, see Xiao, G., *TPDS Jan. 2021 131-146*
- Li, K.**, see Liu, C., *TPDS July 2021 1603-1614*
- Li, K.**, see Liu, C., *TPDS July 2021 1603-1614*
- Li, K.**, see Li, H., *TPDS July 2021 1828-1841*
- Li, K.**, see Li, H., *TPDS July 2021 1828-1841*
- Li, K.**, see Huang, T., *TPDS July 2021 1552-1564*
- Li, K.**, see Long, S., *TPDS July 2021 1629-1640*
- Li, K.**, see Li, W., *TPDS Aug. 2021 2021-2034*
- Li, L.**, see Zhou, Q., *TPDS May 2021 1030-1043*
- Li, L.**, see Pandey, S., *TPDS Nov. 2021 2646-2660*
- Li, M.**, Liu, Y., Liu, X., Sun, Q., You, X., Yang, H., Luan, Z., Gan, L., Yang, G., and Qian, D., The Deep Learning Compiler: A Comprehensive Survey; *TPDS March 2021 708-727*
- Li, M.**, see Ding, T., *TPDS April 2021 855-866*
- Li, M.**, Ao, Y., and Yang, C., Adaptive SpMV/SpMSpV on GPUs for Input Vectors of Varied Sparsity; *TPDS July 2021 1842-1853*
- Li, P.**, see Zhou, Q., *TPDS May 2021 1030-1043*
- Li, Q.**, see Mao, Y., *TPDS July 2021 1777-1788*
- Li, Q.**, Zhang, X., Xiong, J., Hwu, W., and Chen, D., Efficient Methods for Mapping Neural Machine Translator on FPGAs; *TPDS July 2021 1866-1877*
- Li, Q.**, see Zhao, L., *TPDS Oct. 2021 2524-2540*
- Li, Q.**, Liu, Y., Liu, Z., Zhang, P., and Pang, C., Efficient Forwarding Anomaly Detection in Software-Defined Networks; *TPDS Nov. 2021 2676-2690*
- Li, R.**, see Xie, G., *TPDS June 2021 1353-1368*
- Li, R.**, see Shi, J., *TPDS Nov. 2021 2609-2622*
- Li, S.**, see Liao, X., *TPDS Feb. 2021 367-378*
- Li, S.**, see Huang, K., *TPDS March 2021 649-664*
- Li, S.**, see Cheng, D., *TPDS July 2021 1702-1712*
- Li, S.**, see Zhao, K., *TPDS July 2021 1677-1689*
- Li, S.**, Ben-Nun, T., Nadiradze, G., Girolamo, S.D., Dryden, N., Alistarh, D., and Hoefler, T., Breaking (Global) Barriers in Parallel Stochastic Optimization With Wait-Avoiding Group Averaging; *TPDS July 2021 1725-1739*
- Li, S.**, see Han, R., *TPDS July 2021 1591-1602*
- Li, T.**, see Xiao, G., *TPDS Jan. 2021 131-146*
- Li, T.**, see Gong, X., *TPDS March 2021 500-513*
- Li, W.**, see Chen, N., *TPDS April 2021 830-841*
- Li, W.**, Feng, C., Zhang, L., Xu, H., Cao, B., and Imran, M.A., A Scalable Multi-Layer PBFT Consensus for Blockchain; *TPDS May 2021 1146-1160*
- Li, W.**, Liu, D., Chen, K., Li, K., and Qi, H., Hone: Mitigating Stragglers in Distributed Stream Processing With Tuple Scheduling; *TPDS Aug. 2021 2021-2034*
- Li, X.**, see Gu, R., *TPDS April 2021 867-883*
- Li, X.**, Zhang, G., and Zheng, W., SmartTuning: Selecting Hyper-Parameters of a ConvNet System for Fast Training and Small Working Memory; *TPDS July 2021 1690-1701*
- Li, X.**, see Blakeney, C., *TPDS July 2021 1765-1776*
- Li, X.**, see Gong, L., *TPDS July 2021 1854-1865*
- Li, X.**, see Pandey, S., *TPDS Nov. 2021 2646-2660*
- Li, X.**, see Wang, S., *TPDS Nov. 2021 2838-2851*
- Li, Y.**, see Geng, T., *TPDS Jan. 2021 199-213*
- Li, Y.**, Zhao, C., Tang, X., Cai, W., Liu, X., Wang, G., and Gong, X., Towards Minimizing Resource Usage With QoS Guarantee in Cloud Gaming; *TPDS Feb. 2021 426-440*
- Li, Y.**, see Gong, X., *TPDS March 2021 500-513*
- Li, Y.**, see Gong, X., *TPDS March 2021 500-513*
- Li, Y.**, Interlandi, M., Psallidas, F., Wang, W., and Zaniolo, C., SEIZE: Runtime Inspection for Parallel Dataflow Systems; *TPDS April 2021 842-854*
- Li, Y.**, see Gong, L., *TPDS July 2021 1615-1628*
- Li, Z.**, see Gong, L., *TPDS July 2021 1615-1628*
- Li, Z.**, see Li, H., *TPDS July 2021 1828-1841*
- Li, Z.**, see Long, S., *TPDS July 2021 1629-1640*
- Li, Z.**, see Chen, L., *TPDS Dec. 2021 3066-3080*
- Liang, L.**, see Duan, M., *TPDS Jan. 2021 59-71*
- Liang, W.**, see Xu, Z., *TPDS April 2021 799-814*
- Liang, X.**, Yan, Z., Deng, R.H., and Zheng, Q., Investigating the Adoption of Hybrid Encrypted Cloud Data Deduplication With Game Theory; *TPDS March 2021 587-600*
- Liang, X.**, see Zhao, K., *TPDS July 2021 1677-1689*
- Liang, Y.**, see Cheng, Y., *TPDS Nov. 2021 2643-2645*
- Liao, X.**, Li, S., Lu, Y., and Roman, J.E., A Parallel Structured Divide-and-Conquer Algorithm for Symmetric Tridiagonal Eigenvalue Problems; *TPDS Feb. 2021 367-378*
- Liao, X.**, see Du, J., *TPDS July 2021 1665-1676*
- Lin, C.**, and Khazaee, H., Modeling and Optimization of Performance and Cost of Serverless Applications; *TPDS March 2021 615-632*
- Lin, E.**, see Sun, W., *TPDS Nov. 2021 2623-2626*
- Lin, H.**, see Gong, L., *TPDS July 2021 1615-1628*
- Lin, J.**, see Al Badawi, A., *TPDS Feb. 2021 379-391*
- Lin, L.**, see Chen, Y., *TPDS Aug. 2021 2049-2061*
- Lin, S.**, see Sun, W., *TPDS Nov. 2021 2623-2626*
- Lin, W.**, Cui, H., Li, B., and Wang, C., Privacy-Preserving Similarity Search With Efficient Updates in Distributed Key-Value Stores; *TPDS May 2021 1072-1084*
- Lin, W.**, see Huang, T., *TPDS July 2021 1552-1564*
- Lin, W.**, see Wu, W., *TPDS July 2021 1539-1551*
- Lin, W.**, see Peng, Y., *TPDS Aug. 2021 1947-1960*
- Lin, Y.**, see Sun, W., *TPDS Nov. 2021 2623-2626*
- Lin, Z.**, see Bai, Y., *TPDS Oct. 2021 2541-2556*
- Ling, H.**, see Ge, C., *TPDS July 2021 1653-1664*
- Liu, C.**, see Cheng, L., *TPDS June 2021 1494-1510*
- Liu, C.**, Tang, F., Hu, Y., Li, K., Tang, Z., and Li, K., Distributed Task Migration Optimization in MEC by Extending Multi-Agent Deep Reinforcement Learning Approach; *TPDS July 2021 1603-1614*
- Liu, C.**, see Dong, Z., *TPDS Dec. 2021 2867-2879*
- Liu, C.H.**, see Han, R., *TPDS July 2021 1591-1602*
- Liu, C.H.**, see Han, R., *TPDS Sept. 2021 2231-2247*
- Liu, D.**, see Tan, Y., *TPDS Jan. 2021 214-228*
- Liu, D.**, see Duan, M., *TPDS Jan. 2021 59-71*
- Liu, D.**, see Chen, Y., *TPDS Feb. 2021 485-499*
- Liu, D.**, see Li, W., *TPDS Aug. 2021 2021-2034*
- Liu, D.**, Cinnamon, M., Garvin, T., Karavanov, A., Park, S., Strobeck, D., and Lumsdaine, A., Critique of “Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility” by SCC Team From University of Washington; *TPDS Nov. 2021 2639-2642*
- Liu, H.**, see Pandey, S., *TPDS Nov. 2021 2646-2660*
- Liu, J.**, see Yang, D., *TPDS July 2021 1892-1902*
- Liu, K.**, see Zhao, Y., *TPDS Nov. 2021 2691-2704*
- Liu, K.**, see Zhang, G., *TPDS Dec. 2021 3024-3037*
- Liu, L.**, see Chen, L., *TPDS Dec. 2021 3066-3080*
- Liu, Q.**, see Cheng, L., *TPDS June 2021 1494-1510*
- Liu, R.**, see Duan, M., *TPDS Jan. 2021 59-71*
- Liu, R.**, see Gao, X., *TPDS March 2021 692-707*
- Liu, W.**, see Chen, J., *TPDS Sept. 2021 2291-2302*
- Liu, W.**, see Zhang, F., *TPDS Sept. 2021 2321-2337*
- Liu, X.**, see Li, Y., *TPDS Feb. 2021 426-440*
- Liu, X.**, Yang, G., Susilo, W., Tonien, J., and Shen, J., Privacy-Preserving Multi-Keyword Searchable Encryption for Distributed Systems; *TPDS March 2021 561-574*
- Liu, X.**, see Liu, X., *TPDS March 2021 561-574*
- Liu, X.**, see Gong, X., *TPDS March 2021 500-513*
- Liu, X.**, see Li, M., *TPDS March 2021 708-727*
- Liu, X.**, Sun, J., Zheng, L., Wang, S., Liu, Y., and Wei, T., Parallelization and Optimization of NSGA-II on Sunway TaihuLight System; *TPDS April 2021 975-987*

Liu, X., *see* Wang, Y., *TPDS June 2021 1322-1339*
Liu, Y., *see* Li, M., *TPDS March 2021 708-727*
Liu, Y., *see* Liu, X., *TPDS April 2021 975-987*
Liu, Y., *see* Gong, L., *TPDS July 2021 1615-1628*
Liu, Y., Shang, X., and Yang, Y., Joint SFC Deployment and Resource Management in Heterogeneous Edge for Latency Minimization; *TPDS Aug. 2021 2131-2143*
Liu, Y., *see* Bai, Y., *TPDS Oct. 2021 2541-2556*
Liu, Y., *see* Shi, L., *TPDS Nov. 2021 2661-2675*
Liu, Y., *see* Li, Q., *TPDS Nov. 2021 2676-2690*
Liu, Z., *see* Ge, C., *TPDS July 2021 1653-1664*
Liu, Z., *see* Zhao, Y., *TPDS Nov. 2021 2691-2704*
Liu, Z., *see* Li, Q., *TPDS Nov. 2021 2676-2690*
Long, S., Long, W., Li, Z., Li, K., Xia, Y., and Tang, Z., A Game-Based Approach for Cost-Aware Task Assignment With QoS Constraint in Collaborative Edge and Cloud Environments; *TPDS July 2021 1629-1640*
Long, W., *see* Long, S., *TPDS July 2021 1629-1640*
Lopez, A.M., *see* Hernandez-Juarez, D., *TPDS Oct. 2021 2434-2447*
Lorenzon, A.F., *see* Schwarzrock, J., *TPDS July 2021 1713-1724*
Lowell, D., *see* Dong, S., *TPDS Oct. 2021 2448-2463*
Ltaief, H., *see* Salvana, M.L.O., *TPDS Nov. 2021 2719-2733*
Lu, G., *see* Hao, M., *TPDS July 2021 1789-1801*
Lu, H., *see* Zhou, Q., *TPDS April 2021 900-917*
Lu, J., *see* Ouyang, L., *TPDS April 2021 815-829*
Lu, J., *see* Djigal, H., *TPDS May 2021 1057-1071*
Lu, M., *see* Song, D., *TPDS Oct. 2021 2509-2523*
Lu, Q., *see* Li, H., *TPDS Oct. 2021 2594-2605*
Lu, S., *see* Chen, N., *TPDS April 2021 830-841*
Lu, S., *see* Zhang, S., *TPDS Sept. 2021 2175-2187*
Lu, W., *see* Zhang, F., *TPDS Sept. 2021 2303-2320*
Lu, X., *see* Uddin, M.P., *TPDS July 2021 1526-1538*
Lu, Y., *see* Liao, X., *TPDS Feb. 2021 367-378*
Lu, Y., *see* Du, J., *TPDS July 2021 1665-1676*
Luan, Z., *see* Li, M., *TPDS March 2021 708-727*
Lumsdaine, A., *see* Liu, D., *TPDS Nov. 2021 2639-2642*
Luo, G., *see* Shen, M., *TPDS April 2021 884-899*
Luo, H., *see* Xie, G., *TPDS June 2021 1353-1368*
Luo, J., Li, J., Jiao, L., and Cai, J., On the Effective Parallelization and Near-Optimal Deployment of Service Function Chains; *TPDS May 2021 1238-1255*
Luo, L., Guo, D., Zhao, Y., Rottenstreich, O., Ma, R.T., and Luo, X., MCFsyn: A Multi-Party Set Reconciliation Protocol With the Marked Cuckoo Filter; *TPDS Nov. 2021 2705-2718*
Luo, X., *see* Luo, L., *TPDS Nov. 2021 2705-2718*
Luque, E., *see* Wong, A., *TPDS Feb. 2021 254-268*
Lv, J., *see* Ye, Q., *TPDS July 2021 1753-1764*

M

Ma, H., *see* Zhang, H., *TPDS Jan. 2021 1-15*
Ma, J., *see* Jiang, T., *TPDS Dec. 2021 2996-3010*
Ma, R.T., *see* Luo, L., *TPDS Nov. 2021 2705-2718*
Ma, X., *see* Gong, L., *TPDS July 2021 1615-1628*
Ma, X., *see* Li, H., *TPDS Oct. 2021 2477-2490*
Magnoni, L., *see* Suthakar, U., *TPDS June 2021 1395-1408*
Mai, J., *see* Cheng, Y., *TPDS Nov. 2021 2643-2645*
Malhotra, D., *see* Asri, M., *TPDS Aug. 2021 2035-2048*
Manganiello, F., *see* Ahmadi, A., *TPDS June 2021 1452-1464*
Manumachu, R.R., *see* Khaleghzadeh, H., *TPDS March 2021 543-560*
Mao, R., *see* Wu, W., *TPDS July 2021 1539-1551*
Mao, Y., *see* Cheng, L., *TPDS June 2021 1494-1510*
Mao, Y., Hong, W., Wang, H., Li, Q., and Zhong, S., Privacy-Preserving Computation Offloading for Parallel Deep Neural Networks Training; *TPDS July 2021 1777-1788*
Marcon, C., *see* Cataldo, R., *TPDS May 2021 1102-1116*
Markowitch, O., *see* Cao, Z., *TPDS Feb. 2021 392-393*
Marquez, A., *see* Tan, C., *TPDS Dec. 2021 2880-2892*
Martin, K.J.M., *see* Cataldo, R., *TPDS May 2021 1102-1116*

+ Check author entry for coauthors

Maruyama, N., *see* Oyama, Y., *TPDS July 2021 1641-1652*
Masiak, M., Kotlarska, I., Kondraciuk, U., and Szpindler, M., Critique of “Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility” by SCC Team From University of Warsaw; *TPDS Nov. 2021 2635-2638*
Masouros, D., Xydis, S., and Soudris, D., Rusty: Runtime Interference-Aware Predictive Monitoring for Modern Multi-Tenant Systems; *TPDS Jan. 2021 184-198*
Mastroianni, C., *see* Cicirelli, F., *TPDS May 2021 988-1000*
Masuzawa, T., *see* Sudo, Y., *TPDS Dec. 2021 3011-3023*
Matsuoka, S., *see* Oyama, Y., *TPDS July 2021 1641-1652*
McCarthy, E., *see* Oyama, Y., *TPDS July 2021 1641-1652*
Mei, H., *see* Huang, K., *TPDS March 2021 649-664*
Meierhans, S., *see* de Fine Licht, J., *TPDS May 2021 1014-1029*
Melo, A.C.M.A., *see* Figueiredo, M., *TPDS Dec. 2021 3053-3065*
Mencagli, G., Torquati, M., Cardaci, A., Fais, A., Rinaldi, L., and Danelutto, M., WindFlow: High-Speed Continuous Stream Processing With Parallel Building Blocks; *TPDS Nov. 2021 2748-2763*
Meng, C., *see* Peng, Y., *TPDS Aug. 2021 1947-1960*
Meng, T., Zhao, Y., Wolter, K., and Xu, C., On Consortium Blockchain Consistency: A Queueing Network Model Approach; *TPDS June 2021 1369-1382*
Meng, W., *see* Jiang, T., *TPDS Dec. 2021 2996-3010*
Merani, M.L., Croce, D., and Tinnirello, I., Rings for Privacy: An Architecture for Large Scale Privacy-Preserving Data Mining ; *TPDS June 2021 1340-1352*
Miao, C., *see* Yu, H., *TPDS Sept. 2021 2202-2215*
Miao, Y., *see* Bai, Y., *TPDS Oct. 2021 2541-2556*
Min, G., *see* Wang, J., *TPDS Jan. 2021 242-253*
Misra, S., Mukherjee, A., Roy, A., Saurabh, N., Rahulamathavan, Y., and Rajarajan, M., Blockchain at the Edge: Performance of Resource-Constrained IoT Networks; *TPDS Jan. 2021 174-183*
Miwa, S., Laguna, I., and Schulz, M., PredCom: A Predictive Approach to Collecting Approximated Communication Traces; *TPDS Jan. 2021 45-58*
Mohaisen, D., *see* Saad, M., *TPDS Aug. 2021 1961-1973*
Moness, M., *see* Youness, H., *TPDS Aug. 2021 1933-1946*
Montgomery, J., *see* Battula, S.K., *TPDS April 2021 920-974*
Moradi, N., Shameli-Sendi, A., and Khajouei, A., A Scalable Stateful Approach for Virtual Security Functions Orchestration; *TPDS June 2021 1383-1394*
Moranchio, E., *see* Gonzalez, M., *TPDS Jan. 2021 229-241*
Moure, J.C., *see* Hernandez-Juarez, D., *TPDS Oct. 2021 2434-2447*
Mukherjee, A., *see* Misra, S., *TPDS Jan. 2021 174-183*
Murphy, J., *see* Cheng, L., *TPDS June 2021 1494-1510*
Mutlu, O., *see* Ahmadian, S., *TPDS Oct. 2021 2415-2433*

N

Nadiradze, G., *see* Li, S., *TPDS July 2021 1725-1739*
Nakamura, J., *see* Sudo, Y., *TPDS Dec. 2021 3011-3023*
Nakatani, Y., Structured Allocation-Based Consistent Hashing With Improved Balancing for Cloud Infrastructure; *TPDS Sept. 2021 2248-2261*
Nam, B., *see* Cho, S., *TPDS March 2021 601-614*
Navarro, C.A., Carrasco, R., Barrientos, R.J., Riquelme, J.A., and Vega, R., GPU Tensor Cores for Fast Arithmetic Reductions; *TPDS Jan. 2021 72-84*
Navarro, J.P., *see* Figueiredo, M., *TPDS Dec. 2021 3053-3065*
Nguyen, T.T.Q., Bobineau, C., Debusschere, V., Giap, Q.H., and Hadjsaid, N., CPDE: A Methodology for the Transparent Distribution of Centralized Smart Grid Programs; *TPDS Feb. 2021 342-354*
Nine, M.S.Q.Z., and Kosar, T., A Two-Phase Dynamic Throughput Optimization Model for Big Data Transfers; *TPDS Feb. 2021 269-280*
Ning, Z., *see* Wang, X., *TPDS Feb. 2021 411-425*
Ning, Z., Dong, P., Wang, X., Wang, S., Hu, X., Guo, S., Qiu, T., Hu, B., and Kwok, R.Y.K., Distributed and Dynamic Service Placement in Pervasive Edge Computing Networks; *TPDS June 2021 1277-1292*
Nishida, N., *see* Galindo, C., *TPDS June 2021 1425-1436*
Nobre, R., Ilic, A., Santander-Jimenez, S., and Sousa, L., Retargeting Tensor Accelerators for Epistasis Detection; *TPDS Sept. 2021 2160-2174*
Noor, J., *see* Toha, T.R., *TPDS April 2021 931-942*

Nugent, P., *see* Oyama, Y., *TPDS July 2021 1641-1652*
Nyang, D., *see* Saad, M., *TPDS Aug. 2021 1961-1973*

O

O'Shea, B.W., *see* Grete, P., *TPDS Jan. 2021 85-97*
O'Reilly, M.M., *see* Battula, S.K., *TPDS April 2021 960-974*
Oh, S., *see* Cho, S., *TPDS March 2021 601-614*
Olas, T., *see* Szustak, L., *TPDS Dec. 2021 2852-2866*
Omar, A., *see* Youness, H., *TPDS Aug. 2021 1933-1946*
Ouyang, J., *see* Han, R., *TPDS Sept. 2021 2231-2247*
Ouyang, K., *see* Zhao, K., *TPDS July 2021 1677-1689*
Ouyang, L., Huang, Y., Wei, H., and Lu, J., Achieving Probabilistic Atomicity With Well-Bounded Staleness and Low Read Latency in Distributed Datastores; *TPDS April 2021 815-829*
Oyama, Y., Maruyama, N., Dryden, N., McCarthy, E., Harrington, P., Balewski, J., Matsuoka, S., Nugent, P., and Van Essen, B., The Case for Strong Scaling in Deep Learning: Training Large 3D CNNs With Hybrid Parallelism; *TPDS July 2021 1641-1652*
Ozkap, O., *see* Hassanzadeh-Nazarabadi, Y., *TPDS Oct. 2021 2582-2593*

P

Pallez, G., *see* Gainaru, A., *TPDS May 2021 1178-1190*
Pallickara, S., *see* Buddhika, T., *TPDS Aug. 2021 2005-2020*
Pallickara, S.L., *see* Buddhika, T., *TPDS Aug. 2021 2005-2020*
Pandey, S., Wang, Z., Zhong, S., Tian, C., Zheng, B., Li, X., Li, L., Hoisie, A., Ding, C., Li, D., and Liu, H., Trust: Triangle Counting Reloaded on GPUs; *TPDS Nov. 2021 2646-2660*
Pang, C., *see* Li, Q., *TPDS Nov. 2021 2676-2690*
Pang, P., Chen, Q., Zeng, D., and Guo, M., Adaptive Preference-Aware Co-Location for Improving Resource Utilization of Power Constrained Datacenters; *TPDS Feb. 2021 441-456*
Parashar, M., Editor's Note; *TPDS April 2021 743-745*
Parashar, M., Editor's Note; *TPDS Oct. 2021 2381-2385*
Parashar, M., Guest Editorial: Special Section on SC19 Student Cluster Competition; *TPDS Nov. 2021 2606*
Park, J., *see* Han, M., *TPDS May 2021 1117-1132*
Park, S., *see* Kim, K., *TPDS July 2021 1815-1827*
Park, S., *see* Liu, D., *TPDS Nov. 2021 2639-2642*
Paul, A.K., *see* Zhao, N., *TPDS April 2021 918-930*
Peng, B., *see* Hu, Z., *TPDS Sept. 2021 2188-2201*
Peng, X., *see* Zheng, Z., *TPDS Jan. 2021 160-173*
Peng, Y., Bao, Y., Chen, Y., Wu, C., Meng, C., and Lin, W., DL2: A Deep Learning-Driven Scheduler for Deep Learning Clusters; *TPDS Aug. 2021 1947-1960*
Petoumenos, P., *see* Yu, T., *TPDS May 2021 1224-1237*
Pi, A., *see* Wang, S., *TPDS Sept. 2021 2144-2159*
Plale, B., and Harrell, S.L., Transparency and Reproducibility Practice in Large-Scale Computational Science: A Preface to the Special Section; *TPDS Nov. 2021 2607-2608*
Poledna, S., *see* Gill, A., *TPDS Aug. 2021 2101-2114*
Pozzetti, T., and Kshemkalyani, A.D., Resettable Encoded Vector Clock for Causality Analysis With an Application to Dynamic Race Detection; *TPDS April 2021 772-785*
Prieto, P., Abad, P., Gregorio, J.A., and Puente, V., Fast, Accurate Processor Evaluation Through Heterogeneous, Sample-Based Benchmarking; *TPDS Dec. 2021 2983-2995*
Psallidas, F., *see* Li, Y., *TPDS April 2021 842-854*
Puente, V., *see* Prieto, P., *TPDS Dec. 2021 2983-2995*

Q

Qi, H., *see* Li, W., *TPDS Aug. 2021 2021-2034*
Qian, D., *see* Li, M., *TPDS March 2021 708-727*
Qian, F., *see* Gong, L., *TPDS July 2021 1615-1628*
Qian, S., *see* Ding, T., *TPDS April 2021 855-866*

Qian, Z., *see* Chen, N., *TPDS April 2021 830-841*
Qian, Z., *see* Zhang, S., *TPDS Sept. 2021 2175-2187*
Qiao, C., *see* Zhao, G., *TPDS March 2021 728-742*
Qiao, C., *see* Zhao, G., *TPDS Nov. 2021 2777-2792*
Qin, X., *see* Sun, H., *TPDS June 2021 1437-1451*
Qin, Z., *see* Saad, M., *TPDS Aug. 2021 1961-1973*
Qiu, T., *see* Ning, Z., *TPDS June 2021 1277-1292*
Qiu, X., Zhang, W., Chen, W., and Zheng, Z., Distributed and Collective Deep Reinforcement Learning for Computation Offloading: A Practical Perspective; *TPDS May 2021 1085-1101*
Qu, X., Wang, S., Hu, Q., and Cheng, X., Proof of Federated Learning: A Novel Energy-Recycling Consensus Algorithm; *TPDS Aug. 2021 2074-2085*
Qu, Z., *see* Zhou, Q., *TPDS May 2021 1030-1043*
Quan, S., *see* Chen, N., *TPDS April 2021 830-841*
Quraishi, M.H., Tavakoli, E.B., and Ren, F., A Survey of System Architectures and Techniques for FPGA Virtualization; *TPDS Sept. 2021 2216-2230*

R

Rafique, M.M., and Zhu, Z., Memory-Side Prefetching Scheme Incorporating Dynamic Page Mode in 3D-Stacked DRAM; *TPDS Nov. 2021 2734-2747*
Rahli, V., *see* Kozhaya, D., *TPDS Sept. 2021 2277-2290*
Rahulamathavan, Y., *see* Misra, S., *TPDS Jan. 2021 174-183*
Rajaraman, M., *see* Misra, S., *TPDS Jan. 2021 174-183*
Ramamohanarao, K., *see* Kardani-Moghaddam, S., *TPDS March 2021 514-526*
Ramamohanarao, K., *see* Ilager, S., *TPDS May 2021 1044-1056*
Ran, L., *see* Li, H., *TPDS Oct. 2021 2594-2605*
Rana, O.F., *see* Xu, Z., *TPDS April 2021 799-814*
Randles, A., *see* Herschlag, G., *TPDS Oct. 2021 2400-2414*
Rang, W., Yang, D., Cheng, D., and Wang, Y., Data Life Aware Model Updating Strategy for Stream-Based Online Deep Learning; *TPDS Oct. 2021 2571-2581*
Ranjan, R., *see* Barika, M., *TPDS Aug. 2021 2115-2130*
Rellermeyer, J.S., *see* Li, H., *TPDS July 2021 1828-1841*
Ren, F., *see* Zhang, T., *TPDS Feb. 2021 457-469*
Ren, F., *see* Quraishi, M.H., *TPDS Sept. 2021 2216-2230*
Ren, K., *see* Saad, M., *TPDS Aug. 2021 1961-1973*
Rexachs, D., *see* Wong, A., *TPDS Feb. 2021 254-268*
Rinaldi, L., *see* Mencagli, G., *TPDS Nov. 2021 2748-2763*
Riquelme, J.A., *see* Navarro, C.A., *TPDS Jan. 2021 72-84*
Ritt, M., *see* Schwarzrock, J., *TPDS July 2021 1713-1724*
Rizvi, A.S.M., *see* Toha, T.R., *TPDS April 2021 931-942*
Robertazzi, T., *see* Shi, L., *TPDS Nov. 2021 2661-2675*
Roman, J.E., *see* Liao, X., *TPDS Feb. 2021 367-378*
Rongo, R., *see* Giordano, A., *TPDS Feb. 2021 470-484*
Rossi, D., *see* Glaser, F., *TPDS March 2021 633-648*
Rottenstreich, O., *see* Luo, L., *TPDS Nov. 2021 2705-2718*
Roy, A., *see* Misra, S., *TPDS Jan. 2021 174-183*
Ruiz, R., *see* Wang, S., *TPDS Nov. 2021 2838-2851*
Rupprecht, L., *see* Zhao, N., *TPDS April 2021 918-930*

S

Saad, M., Qin, Z., Ren, K., Nyang, D., and Mohaisen, D., e-PoS: Making Proof-of-Stake Decentralized and Fair; *TPDS Aug. 2021 1961-1973*
Saad, Y., *see* Shi, J., *TPDS Nov. 2021 2609-2622*
Sahasrabudhe, D., *see* Zambre, R., *TPDS Dec. 2021 3038-3052*
Sahni, Y., Cao, J., Yang, L., and Ji, Y., Multi-Hop Multi-Task Partial Computation Offloading in Collaborative Edge Computing; *TPDS May 2021 1133-1145*
Sahoo, P.K., *see* Thakkar, H.K., *TPDS Dec. 2021 2906-2920*
Salehkaleybar, S., *see* Shahrouz, S., *TPDS Oct. 2021 2386-2399*
Salkhordeh, R., *see* Ahmadian, S., *TPDS Oct. 2021 2415-2433*
Salvana, M.L.O., Abdulah, S., Huang, H., Ltaief, H., Sun, Y., Genton, M.G., and Keyes, D.E., High Performance Multivariate Geospatial Statistics on Manycore Systems; *TPDS Nov. 2021 2719-2733*

- Sanchez, G.**, see Cataldo, R., *TPDS May 2021 1102-1116*
- Sandes, E.F.O.**, see Figueiredo, M., *TPDS Dec. 2021 3053-3065*
- Santander-Jimenez, S.**, see Nobre, R., *TPDS Sept. 2021 2160-2174*
- Saurabh, N.**, see Misra, S., *TPDS Jan. 2021 174-183*
- Savas, E.**, see Cetin, G.S., *TPDS April 2021 760-771*
- Saxena, D.**, see Singh, A.K., *TPDS Dec. 2021 2893-2905*
- Schildermans, S.**, Shan, J., Aerts, K., Jackrel, J., and Ding, X., Virtualization Overhead of Multithreading in X86 State-of-the-Art & Remaining Challenges; *TPDS Oct. 2021 2557-2570*
- Schneider, M.**, see Besta, M., *TPDS April 2021 943-959*
- Schneider, T.**, see Besta, M., *TPDS April 2021 943-959*
- Schulz, M.**, see Miwa, S., *TPDS Jan. 2021 45-58*
- Schwarzrock, J.**, de Oliveira, C.C., Ritt, M., Lorenzon, A.F., and Beck, A.C.S., A Runtime and Non-Intrusive Approach to Optimize EDP by Tuning Threads and CPU Frequency for OpenMP Applications; *TPDS July 2021 1713-1724*
- Seddighin, S.**, see Boroujeni, M., *TPDS Nov. 2021 2764-2776*
- Sepulveda, J.**, see Cataldo, R., *TPDS May 2021 1102-1116*
- Shahid, A.**, see Khaleghzadeh, H., *TPDS March 2021 543-560*
- Shahrouz, S.**, Salehkaleybar, S., and Hashemi, M., gIM: GPU Accelerated RIS-Based Influence Maximization Algorithm; *TPDS Oct. 2021 2386-2399*
- Shameli-Sendi, A.**, see Moradi, N., *TPDS June 2021 1383-1394*
- Shan, H.**, see Guo, Y., *TPDS Dec. 2021 2921-2935*
- Shan, J.**, see Schildermans, S., *TPDS Oct. 2021 2557-2570*
- Shang, X.**, see Liu, Y., *TPDS Aug. 2021 2131-2143*
- Shayan, M.**, Fung, C., Yoon, C.J.M., and Beschastnikh, I., Biscotti: A Blockchain System for Private and Secure Federated Learning; *TPDS July 2021 1513-1525*
- Shen, C.**, see Zhao, L., *TPDS Oct. 2021 2524-2540*
- Shen, J.**, see Liu, X., *TPDS March 2021 561-574*
- Shen, J.**, see Yu, H., *TPDS Sept. 2021 2202-2215*
- Shen, M.**, Luo, G., and Xiao, N., Coarse-Grained Parallel Routing With Recursive Partitioning for FPGAs; *TPDS April 2021 884-899*
- Shen, M.**, see Du, J., *TPDS July 2021 1665-1676*
- Shen, X.**, see Guan, H., *TPDS Feb. 2021 330-341*
- Sheng, Q.Z.**, see Wang, S., *TPDS Nov. 2021 2838-2851*
- Shenoy, P.**, see Ambati, P., *TPDS Dec. 2021 3081-3100*
- Shi, J.**, Li, R., Xi, Y., Saad, Y., and de Hoop, M.V., Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility; *TPDS Nov. 2021 2609-2622*
- Shi, L.**, Liu, Y., Zhang, J., and Robertazzi, T., Coflow Scheduling in Data Centers: Routing and Bandwidth Allocation; *TPDS Nov. 2021 2661-2675*
- Shi, R.**, see Geng, T., *TPDS Jan. 2021 199-213*
- Shi, S.**, Chu, X., and Li, B., MG-WFBP: Merging Gradients Wisely for Efficient Communication in Distributed Deep Learning; *TPDS Aug. 2021 1903-1917*
- Shi, X.**, see Zheng, Z., *TPDS Jan. 2021 160-173*
- Shibata, M.**, see Sudo, Y., *TPDS Dec. 2021 3011-3023*
- Shu, R.**, see Zhang, T., *TPDS Feb. 2021 457-469*
- Shui, C.**, see Tan, G., *TPDS Sept. 2021 2367-2380*
- Si, M.**, see Balaji, P., *TPDS July 2021 1511-1512*
- Sigdel, P.**, Yuan, X., and Tzeng, N., Realizing Best Checkpointing Control in Computing Systems; *TPDS Feb. 2021 315-329*
- Silva, J.**, see Galindo, C., *TPDS June 2021 1425-1436*
- Silveira, J.**, see Cataldo, R., *TPDS May 2021 1102-1116*
- Simmhan, Y.**, see Khochare, A., *TPDS June 2021 1479-1493*
- Singh, A.K.**, Saxena, D., Kumar, J., and Gupta, V., A Quantum Approach Towards the Adaptive Prediction of Cloud Workloads; *TPDS Dec. 2021 2893-2905*
- Singla, A.**, see Besta, M., *TPDS April 2021 943-959*
- Skourtis, D.**, see Zhao, N., *TPDS April 2021 918-930*
- Smith, D.R.**, see Suthakar, U., *TPDS June 2021 1395-1408*
- Smith, M.C.**, see Ahmadi, A., *TPDS June 2021 1452-1464*
- Song, D.**, Zhang, F., Lu, M., Yang, S., and Huang, H., DTransE: Distributed Translating Embedding for Knowledge Graph; *TPDS Oct. 2021 2509-2523*
- Soudris, D.**, see Masouros, D., *TPDS Jan. 2021 184-198*
- Sousa, L.**, see Nobre, R., *TPDS Sept. 2021 2160-2174*
- Spataro, W.**, see Giordano, A., *TPDS Feb. 2021 470-484*
- Spirovska, K.**, Didona, D., and Zwaenepoel, W., Optimistic Causal Consistency for Geo-Replicated Key-Value Stores; *TPDS March 2021 527-542*
- Srisa-an, W.**, see Tan, Y., *TPDS Jan. 2021 214-228*
- Strobeck, D.**, see Liu, D., *TPDS Nov. 2021 2639-2642*
- Su, J.**, see Zhang, F., *TPDS Sept. 2021 2321-2337*
- Su, S.**, see Li, A., *TPDS July 2021 1878-1891*
- Sudo, Y.**, Shibata, M., Nakamura, J., Kim, Y., and Masuzawa, T., Self-Stabilizing Population Protocols With Global Knowledge; *TPDS Dec. 2021 3011-3023*
- Sun, C.**, see Yu, H., *TPDS Sept. 2021 2202-2215*
- Sun, H.**, Dai, S., Huang, J., and Qin, X., Co-Active: A Workload-Aware Collaborative Cache Management Scheme for NVMe SSDs; *TPDS June 2021 1437-1451*
- Sun, J.**, see Liu, X., *TPDS April 2021 975-987*
- Sun, J.**, see Di, B., *TPDS May 2021 1161-1177*
- Sun, Q.**, see Li, M., *TPDS March 2021 708-727*
- Sun, W.**, Chen, H., Lin, S., Lin, Y., Wu, J., Lin, E., and Chou, J., Critique of “Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility” by SCC Team From National Tsing Hua University; *TPDS Nov. 2021 2623-2626*
- Sun, X.**, see Ye, Z., *TPDS Jan. 2021 116-130*
- Sun, Y.**, see Zhou, Q., *TPDS April 2021 900-917*
- Sun, Y.**, see Ye, Q., *TPDS July 2021 1753-1764*
- Sun, Y.**, see Dong, S., *TPDS Oct. 2021 2448-2463*
- Sun, Y.**, see Salvana, M.L.O., *TPDS Nov. 2021 2719-2733*
- Sunar, B.**, see Cetin, G.S., *TPDS April 2021 760-771*
- Suneja, S.**, see Karn, R.R., *TPDS March 2021 674-691*
- Susilo, W.**, see Liu, X., *TPDS March 2021 561-574*
- Suthakar, U.**, Magnoni, L., Smith, D.R., and Khan, A., Optimised Lambda Architecture for Monitoring Scientific Infrastructure; *TPDS June 2021 1395-1408*
- Szindler, M.**, see Masiak, M., *TPDS Nov. 2021 2635-2638*
- Szustak, L.**, Wyrzykowski, R., Kuczynski, L., and Olas, T., Architectural Adaptation and Performance-Energy Optimization for CFD Application on AMD EPYC Rome; *TPDS Dec. 2021 2852-2866*

T

- Tagliavini, G.**, see Glaser, F., *TPDS March 2021 633-648*
- Tamarit, S.**, see Galindo, C., *TPDS June 2021 1425-1436*
- Tan, C.**, Xie, C., Geng, T., Marquez, A., Tumeo, A., Barker, K., and Li, A., ARENA: Asynchronous Reconfigurable Accelerator Ring to Enable Data-Centric Parallel Computing; *TPDS Dec. 2021 2880-2892*
- Tan, G.**, Shui, C., Wang, Y., Yu, X., and Yan, Y., Optimizing the LINPACK Algorithm for Large-Scale PCIe-Based CPU-GPU Heterogeneous Systems; *TPDS Sept. 2021 2367-2380*
- Tan, K.**, see Huang, K., *TPDS March 2021 649-664*
- Tan, N.**, see Chapp, D., *TPDS Dec. 2021 2936-2952*
- Tan, Y.**, Xu, C., Xie, J., Yan, Z., Jiang, H., Srisa-an, W., Chen, X., and Liu, D., Improving the Performance of Deduplication-Based Storage Cache via Content-Driven Cache Management Methods; *TPDS Jan. 2021 214-228*
- Tan, Y.**, see Duan, M., *TPDS Jan. 2021 59-71*
- Tang, F.**, see Liu, C., *TPDS July 2021 1603-1614*
- Tang, L.**, Cai, G., Zheng, Y., and Chen, J., A Resource and Performance Optimization Reduction Circuit on FPGAs; *TPDS Feb. 2021 355-366*
- Tang, X.**, see Li, Y., *TPDS Feb. 2021 426-440*
- Tang, X.**, see Cui, W., *TPDS June 2021 1307-1321*
- Tang, Z.**, see Liu, C., *TPDS July 2021 1603-1614*
- Tang, Z.**, see Long, S., *TPDS July 2021 1629-1640*
- Tang, Z.**, see Zhang, X., *TPDS Nov. 2021 2823-2837*
- Tarasov, V.**, see Zhao, N., *TPDS April 2021 918-930*
- Taufner, M.**, see Chapp, D., *TPDS Dec. 2021 2936-2952*
- Tavakoli, E.B.**, see Quraishi, M.H., *TPDS Sept. 2021 2216-2230*
- Teodoro, G.**, see Figueiredo, M., *TPDS Dec. 2021 3053-3065*
- Thakkar, H.K.**, Sahoo, P.K., and Veeravalli, B., RENDA: Resource and Network Aware Data Placement Algorithm for Periodic Workloads in Cloud; *TPDS Dec. 2021 2906-2920*

- Thomson, J.**, see Yu, T., *TPDS May 2021 1224-1237*
Tian, C., see Pandey, S., *TPDS Nov. 2021 2646-2660*
Tinnirello, I., see Merani, M.L., *TPDS June 2021 1340-1352*
Toha, T.R., Rizvi, A.S.M., Noor, J., Adnan, M.A., and Al Islam, A.B.M.A., Towards Greening MapReduce Clusters Considering Both Computation Energy and Cooling Energy; *TPDS April 2021 931-942*
Tonien, J., see Liu, X., *TPDS March 2021 561-574*
Torquati, M., see Mencagli, G., *TPDS Nov. 2021 2748-2763*
Trajanovski, S., see Yang, S., *TPDS Feb. 2021 295-314*
Tran-Dang, H., and Kim, D., FRATO: Fog Resource Based Adaptive Task Offloading for Delay-Minimizing IoT Service Provisioning ; *TPDS Oct. 2021 2491-2508*
Tsai, H., see Yi-Wen, W., *TPDS Sept. 2021 2352-2366*
Tumeo, A., see Tan, C., *TPDS Dec. 2021 2880-2892*
Tzeng, N., see Sigdel, P., *TPDS Feb. 2021 315-329*

U

- Uddin, M.P.**, Xiang, Y., Lu, X., Yearwood, J., and Gao, L., Mutual Information Driven Federated Learning; *TPDS July 2021 1526-1538*
Unat, D., see Ahmad, N., *TPDS Nov. 2021 2809-2822*

V

- Van Essen, B.**, see Oyama, Y., *TPDS July 2021 1641-1652*
Vasilakos, A.V., see Hao, M., *TPDS July 2021 1789-1801*
Vazquez, D., see Hernandez-Juarez, D., *TPDS Oct. 2021 2434-2447*
Veeravalli, B., see Al Badawi, A., *TPDS Feb. 2021 379-391*
Veeravalli, B., see Thakkar, H.K., *TPDS Dec. 2021 2906-2920*
Vega, R., see Navarro, C.A., *TPDS Jan. 2021 72-84*
Vella, F., see Formisano, A., *TPDS Dec. 2021 2970-2982*
Vetter, J.S., see Herschlag, G., *TPDS Oct. 2021 2400-2414*

W

- Wan, S.**, see Huang, W., *TPDS Jan. 2021 16-30*
Wang, C., Yang, Y., and Zhou, P., Towards Efficient Scheduling of Federated Mobile Devices Under Computational and Statistical Heterogeneity; *TPDS Feb. 2021 394-410*
Wang, C., see Chen, D., *TPDS April 2021 786-798*
Wang, C., see Lin, W., *TPDS May 2021 1072-1084*
Wang, C., see Gong, L., *TPDS July 2021 1854-1865*
Wang, C., see Wu, X., *TPDS July 2021 1565-1577*
Wang, C., see Zhao, L., *TPDS Oct. 2021 2524-2540*
Wang, D., see Chen, G., *TPDS March 2021 665-673*
Wang, F., see Hao, M., *TPDS July 2021 1789-1801*
Wang, G., see Li, Y., *TPDS Feb. 2021 426-440*
Wang, G., see Han, R., *TPDS Sept. 2021 2231-2247*
Wang, H., see Mao, Y., *TPDS July 2021 1777-1788*
Wang, J., Hu, J., Min, G., Zomaya, A.Y., and Georgalas, N., Fast Adaptive Task Offloading in Edge Computing Based on Meta Reinforcement Learning; *TPDS Jan. 2021 242-253*
Wang, J., see Asri, M., *TPDS Aug. 2021 2035-2048*
Wang, J., see Yu, H., *TPDS Sept. 2021 2202-2215*
Wang, J., see Wang, S., *TPDS Sept. 2021 2144-2159*
Wang, K., see Zhou, Q., *TPDS April 2021 900-917*
Wang, K., see Zhou, Q., *TPDS May 2021 1030-1043*
Wang, L., see Gu, R., *TPDS April 2021 867-883*
Wang, L., see Jiang, T., *TPDS Dec. 2021 2996-3010*
Wang, Q., see Chen, D., *TPDS April 2021 786-798*
Wang, Q., see Chen, Y., *TPDS Aug. 2021 2049-2061*
Wang, Q., see Zhao, L., *TPDS Oct. 2021 2524-2540*
Wang, R., see Zhang, F., *TPDS Sept. 2021 2321-2337*
Wang, S., Ding, Z., and Jiang, C., Elastic Scheduling for Microservice Applications in Clouds ; *TPDS Jan. 2021 98-115*
Wang, S., see Liu, X., *TPDS April 2021 975-987*
Wang, S., see Ning, Z., *TPDS June 2021 1277-1292*

- Wang, S.**, see Qu, X., *TPDS Aug. 2021 2074-2085*
Wang, S., Pi, A., Zhou, X., Wang, J., and Xu, C., Overlapping Communication With Computation in Parameter Server for Scalable DL Training; *TPDS Sept. 2021 2144-2159*
Wang, S., see Li, H., *TPDS Oct. 2021 2477-2490*
Wang, S., Li, X., Sheng, Q.Z., Ruiz, R., Zhang, J., and Beheshti, A., Multi-Queue Request Scheduling for Profit Maximization in IaaS Clouds; *TPDS Nov. 2021 2838-2851*
Wang, T., see Geng, T., *TPDS Jan. 2021 199-213*
Wang, W., see Li, Y., *TPDS April 2021 842-854*
Wang, X., Ning, Z., and Guo, S., Multi-Agent Imitation Learning for Pervasive Edge Computing: A Decentralized Computation Offloading Algorithm; *TPDS Feb. 2021 411-425*
Wang, X., see Ning, Z., *TPDS June 2021 1277-1292*
Wang, X., see Han, R., *TPDS July 2021 1591-1602*
Wang, X., see Zhang, J., *TPDS Aug. 2021 2086-2100*
Wang, Y., see Ye, Z., *TPDS Jan. 2021 116-130*
Wang, Y., see Cheng, L., *TPDS June 2021 1494-1510*
Wang, Y., Jiang, X., Guan, N., Guo, Z., Liu, X., and Yi, W., Partitioning-Based Scheduling of OpenMP Task Systems With Tied Tasks; *TPDS June 2021 1322-1339*
Wang, Y., see Hao, M., *TPDS July 2021 1789-1801*
Wang, Y., see Tan, G., *TPDS Sept. 2021 2367-2380*
Wang, Y., see Rang, W., *TPDS Oct. 2021 2571-2581*
Wang, Z., see Gu, R., *TPDS April 2021 867-883*
Wang, Z., see Li, H., *TPDS Oct. 2021 2594-2605*
Wang, Z., see Pandey, S., *TPDS Nov. 2021 2646-2660*
Wang, Z., Hu, W., Chen, G., Yuan, C., Gu, R., and Huang, Y., Towards Efficient Distributed Subgraph Enumeration Via Backtracking-Based Framework; *TPDS Dec. 2021 2953-2969*
Wei, H., see Ouyang, L., *TPDS April 2021 815-829*
Wei, M., see Cui, W., *TPDS June 2021 1307-1321*
Wei, S., see Zheng, Z., *TPDS Jan. 2021 160-173*
Wei, S., see Chen, L., *TPDS Dec. 2021 3066-3080*
Wei, T., see Liu, X., *TPDS April 2021 975-987*
Wolter, K., see Meng, T., *TPDS June 2021 1369-1382*
Wong, A., Heymann, E., Rexachs, D., and Luque, E., Middleware to Manage Fault Tolerance Using Semi-Coordinated Checkpoints; *TPDS Feb. 2021 254-268*
Wu, C., see Geng, T., *TPDS Jan. 2021 199-213*
Wu, C., see Peng, Y., *TPDS Aug. 2021 1947-1960*
Wu, D., see Han, R., *TPDS Sept. 2021 2231-2247*
Wu, G., see Xu, Z., *TPDS April 2021 799-814*
Wu, J., see Chen, N., *TPDS April 2021 830-841*
Wu, J., see Cheng, Y., *TPDS July 2021 1802-1814*
Wu, J., see Yu, H., *TPDS Sept. 2021 2202-2215*
Wu, J., see Zhang, S., *TPDS Sept. 2021 2175-2187*
Wu, J., see Sun, W., *TPDS Nov. 2021 2623-2626*
Wu, R., see Zhang, F., *TPDS Sept. 2021 2321-2337*
Wu, W., see Geng, T., *TPDS Jan. 2021 199-213*
Wu, W., see Huang, T., *TPDS July 2021 1552-1564*
Wu, W., He, L., Lin, W., and Mao, R., Accelerating Federated Learning Over Reliability-Agnostic Clients in Mobile Edge Computing Systems; *TPDS July 2021 1539-1551*
Wu, X., Yao, X., and Wang, C., FedSCR: Structure-Based Communication Reduction for Federated Learning; *TPDS July 2021 1565-1577*
Wu, Y., see Bai, Y., *TPDS Oct. 2021 2541-2556*
Wu, Y., see Cheng, Y., *TPDS Nov. 2021 2643-2645*
Wu, Y., see Zhao, Y., *TPDS Nov. 2021 2691-2704*
Wyrzykowski, R., see Szustak, L., *TPDS Dec. 2021 2852-2866*

X

- Xi, Y.**, see Shi, J., *TPDS Nov. 2021 2609-2622*
Xia, F., see Cheng, D., *TPDS July 2021 1702-1712*
Xia, Q., see Xu, Z., *TPDS April 2021 799-814*

- Xia, X.**, Chen, F., He, Q., Grundy, J.C., Abdelrazek, M., and Jin, H., Cost-Effective App Data Distribution in Edge Computing; *TPDS Jan. 2021 31-44*
- Xia, X.**, Chen, F., He, Q., Grundy, J., Abdelrazek, M., and Jin, H., Online Collaborative Data Caching in Edge Computing; *TPDS Feb. 2021 281-294*
- Xia, Y.**, see Long, S., *TPDS July 2021 1629-1640*
- Xiang, Y.**, see Li, B., *TPDS May 2021 1210-1223*
- Xiang, Y.**, see Uddin, M.P., *TPDS July 2021 1526-1538*
- Xiao, F.**, see Fan, W., *TPDS Nov. 2021 2793-2808*
- Xiao, G.**, Li, K., Chen, Y., He, W., Zomaya, A.Y., and Li, T., CASpMV: A Customized and Accelerative SpMV Framework for the Sunway TaihuLight; *TPDS Jan. 2021 131-146*
- Xiao, N.**, see Al Badawi, A., *TPDS Feb. 2021 379-391*
- Xiao, N.**, see Shen, M., *TPDS April 2021 884-899*
- Xiao, N.**, see Du, J., *TPDS July 2021 1665-1676*
- Xie, C.**, see Huang, W., *TPDS Jan. 2021 16-30*
- Xie, C.**, see Tan, C., *TPDS Dec. 2021 2880-2892*
- Xie, G.**, Yang, K., Luo, H., Li, R., and Hu, S., Reliability and Confidentiality Co-Verification for Parallel Applications in Distributed Systems; *TPDS June 2021 1353-1368*
- Xie, J.**, see Tan, Y., *TPDS Jan. 2021 214-228*
- Xin, G.**, see Han, R., *TPDS July 2021 1591-1602*
- Xiong, J.**, see Li, Q., *TPDS July 2021 1866-1877*
- Xiong, Y.**, see Cheng, Y., *TPDS July 2021 1802-1814*
- Xu, C.**, see Tan, Y., *TPDS Jan. 2021 214-228*
- Xu, C.**, see Ye, Z., *TPDS Jan. 2021 116-130*
- Xu, C.**, see Meng, T., *TPDS June 2021 1369-1382*
- Xu, C.**, see Wang, S., *TPDS Sept. 2021 2144-2159*
- Xu, H.**, see Zhao, G., *TPDS March 2021 728-742*
- Xu, H.**, see Li, W., *TPDS May 2021 1146-1160*
- Xu, H.**, see Zhao, G., *TPDS Nov. 2021 2777-2792*
- Xu, P.**, see Cheng, Y., *TPDS Nov. 2021 2643-2645*
- Xu, W.**, see Xu, Z., *TPDS April 2021 799-814*
- Xu, W.**, see Zhou, Q., *TPDS April 2021 900-917*
- Xu, Y.**, see Bai, Y., *TPDS Oct. 2021 2541-2556*
- Xu, Z.**, Zhao, L., Liang, W., Rana, O.F., Zhou, P., Xia, Q., Xu, W., and Wu, G., Energy-Aware Inference Offloading for DNN-Driven Applications in Mobile Edge Clouds; *TPDS April 2021 799-814*
- Xue, G.**, see Ding, T., *TPDS April 2021 855-866*
- Xue, H.**, see Zhang, P., *TPDS June 2021 1293-1306*
- Xydis, S.**, see Masouros, D., *TPDS Jan. 2021 184-198*
- Yang, S.**, Li, F., Trajanovski, S., Yahyapour, R., and Fu, X., Recent Advances of Resource Allocation in Network Function Virtualization; *TPDS Feb. 2021 295-314*
- Yang, S.**, see Song, D., *TPDS Oct. 2021 2509-2523*
- Yang, Y.**, see Wang, C., *TPDS Feb. 2021 394-410*
- Yang, Y.**, see Li, B., *TPDS May 2021 1210-1223*
- Yang, Y.**, see Liu, Y., *TPDS Aug. 2021 2131-2143*
- Yao, X.**, see Wu, X., *TPDS July 2021 1565-1577*
- Ye, Q.**, Sun, Y., Zhang, J., and Lv, J., A Distributed Framework for EA-Based NAS; *TPDS July 2021 1753-1764*
- Ye, Z.**, Wang, Y., He, S., Xu, C., and Sun, X., Sova: A Software-Defined Autonomous Framework for Virtual Network Allocations; *TPDS Jan. 2021 116-130*
- Yearwood, J.**, see Uddin, M.P., *TPDS July 2021 1526-1538*
- Yi, W.**, see Wang, Y., *TPDS June 2021 1322-1339*
- Yi-Wen, W.**, Chen, W., and Tsai, H., Accelerating the Bron-Kerbosch Algorithm for Maximal Clique Enumeration Using GPUs; *TPDS Sept. 2021 2352-2366*
- Yilmaz, B.**, see Ahmad, N., *TPDS Nov. 2021 2809-2822*
- Yin, C.**, see Ge, C., *TPDS July 2021 1653-1664*
- Yin, H.**, see Gu, R., *TPDS April 2021 867-883*
- Yin, J.**, see Deng, S., *TPDS Aug. 2021 1918-1932*
- Yin, S.**, see Chen, L., *TPDS Dec. 2021 3066-3080*
- Yoo, J.**, see Li, H., *TPDS Oct. 2021 2477-2490*
- Yoon, C.J.M.**, see Shayan, M., *TPDS July 2021 1513-1525*
- You, X.**, see Li, M., *TPDS March 2021 708-727*
- Youness, H.**, Omar, A., and Moness, M., An Optimized Weighted Average Makespan in Fault-Tolerant Heterogeneous MPSoCs; *TPDS Aug. 2021 1933-1946*
- Yu, G.**, see Gong, S., *TPDS April 2021 746-759*
- Yu, H.**, Zheng, Z., Shen, J., Miao, C., Sun, C., Hu, H., Bi, J., Wu, J., and Wang, J., Octans: Optimal Placement of Service Function Chains in Many-Core Systems; *TPDS Sept. 2021 2202-2215*
- Yu, J.**, see Ding, T., *TPDS April 2021 855-866*
- Yu, P.S.**, see Li, H., *TPDS Oct. 2021 2477-2490*
- Yu, S.**, see Fan, W., *TPDS Nov. 2021 2793-2808*
- Yu, T.**, Zhong, R., Janjic, V., Petoumenos, P., Zhai, J., Leather, H., and Thomson, J., Collaborative Heterogeneity-Aware OS Scheduler for Asymmetric Multicore Processors; *TPDS May 2021 1224-1237*
- Yu, X.**, see Tan, G., *TPDS Sept. 2021 2367-2380*
- Yu, Z.**, see Guo, Y., *TPDS Dec. 2021 2921-2935*
- Yuan, C.**, see Wang, Z., *TPDS Dec. 2021 2953-2969*
- Yuan, H.**, see Chen, D., *TPDS April 2021 786-798*
- Yuan, H.**, see Li, H., *TPDS Oct. 2021 2477-2490*
- Yuan, X.**, see Sigdel, P., *TPDS Feb. 2021 315-329*
- Yuan, X.**, see Jiang, T., *TPDS Dec. 2021 2996-3010*

Y

- Yahyapour, R.**, see Yang, S., *TPDS Feb. 2021 295-314*
- Yan, X.**, see Zhao, Y., *TPDS Nov. 2021 2691-2704*
- Yan, Y.**, see Blakeney, C., *TPDS July 2021 1765-1776*
- Yan, Y.**, see Tan, G., *TPDS Sept. 2021 2367-2380*
- Yan, Y.**, see Cheng, Y., *TPDS Nov. 2021 2643-2645*
- Yan, Z.**, see Tan, Y., *TPDS Jan. 2021 214-228*
- Yan, Z.**, see Chen, Y., *TPDS Feb. 2021 485-499*
- Yan, Z.**, see Liang, X., *TPDS March 2021 587-600*
- Yang, C.**, see Chen, Y., *TPDS June 2021 1465-1478*
- Yang, C.**, see Li, M., *TPDS July 2021 1842-1853*
- Yang, C.**, see Chen, J., *TPDS Sept. 2021 2291-2302*
- Yang, D.**, Liu, J., and Lai, J., EDGES: An Efficient Distributed Graph Embedding System on GPU Clusters; *TPDS July 2021 1892-1902*
- Yang, D.**, see Rang, W., *TPDS Oct. 2021 2571-2581*
- Yang, G.**, see Liu, X., *TPDS March 2021 561-574*
- Yang, G.**, see Li, M., *TPDS March 2021 708-727*
- Yang, H.**, see Li, M., *TPDS March 2021 708-727*
- Yang, K.**, see Xie, G., *TPDS June 2021 1353-1368*
- Yang, K.**, see Dong, Z., *TPDS Dec. 2021 2867-2879*
- Yang, L.**, see Sahni, Y., *TPDS May 2021 1133-1145*
- Yang, L.**, see Zhang, F., *TPDS Sept. 2021 2303-2320*
- Yang, L.**, see Zhang, X., *TPDS Nov. 2021 2823-2837*

Z

- Zambre, R.**, Sahasrabudhe, D., Zhou, H., Berzins, M., Chandramowlishwaran, A., and Balaji, P., Logically Parallel Communication for Fast MPI+Threads Applications; *TPDS Dec. 2021 3038-3052*
- Zaniolo, C.**, see Li, Y., *TPDS April 2021 842-854*
- Zeng, D.**, see Pang, P., *TPDS Feb. 2021 441-456*
- Zhai, J.**, see Yu, T., *TPDS May 2021 1224-1237*
- Zhai, J.**, see Balaji, P., *TPDS July 2021 1511-1512*
- Zhai, J.**, see Zhang, F., *TPDS Sept. 2021 2262-2276*
- Zhai, J.**, see Zhang, C., *TPDS Nov. 2021 2631-2634*
- Zhai, Y.**, see Zhao, K., *TPDS July 2021 1677-1689*
- Zhang, A.**, see Ge, C., *TPDS July 2021 1653-1664*
- Zhang, C.**, Zhang, F., Guo, X., He, B., Zhang, X., and Du, X., iMLBench: A Machine Learning Benchmark Suite for CPU-GPU Integrated Architectures; *TPDS July 2021 1740-1752*
- Zhang, C.**, see Deng, S., *TPDS Aug. 2021 1918-1932*
- Zhang, C.**, see Zhang, F., *TPDS Sept. 2021 2303-2320*
- Zhang, C.**, see Zhang, F., *TPDS Sept. 2021 2262-2276*
- Zhang, C.**, Zhao, C., He, J., Chen, S., Zheng, L., Huang, K., Han, W., and Zhai, J., Critique of “Planetary Normal Mode Computation: Parallel Algorithms,

- Performance, and Reproducibility” by SCC Team From Tsinghua University; *TPDS Nov. 2021 2631-2634*
- Zhang, D.**, see Hu, Z., *TPDS Sept. 2021 2188-2201*
- Zhang, F.**, see Zhang, C., *TPDS July 2021 1740-1752*
- Zhang, F.**, Zhang, C., Yang, L., Zhang, S., He, B., Lu, W., and Du, X., Fine-Grained Multi-Query Stream Processing on Integrated Architectures ; *TPDS Sept. 2021 2303-2320*
- Zhang, F.**, Su, J., Liu, W., He, B., Wu, R., Du, X., and Wang, R., Yuenyeung-SpTRSV: A Thread-Level and Warp-Level Fusion Synchronization-Free Sparse Triangular Solve; *TPDS Sept. 2021 2321-2337*
- Zhang, F.**, Chen, Z., Zhang, C., Zhou, A.C., Zhai, J., and Du, X., An Efficient Parallel Secure Machine Learning Framework on GPUs; *TPDS Sept. 2021 2262-2276*
- Zhang, F.**, see Song, D., *TPDS Oct. 2021 2509-2523*
- Zhang, G.**, see Li, X., *TPDS July 2021 1690-1701*
- Zhang, G.**, Lee, J.Y.B., Liu, K., Hu, H., and Aggarwal, V., A Unified Framework for Flexible Playback Latency Control in Live Video Streaming; *TPDS Dec. 2021 3024-3037*
- Zhang, H.**, Geng, X., and Ma, H., Learning-Driven Interference-Aware Workload Parallelization for Streaming Applications in Heterogeneous Cluster; *TPDS Jan. 2021 1-15*
- Zhang, H.**, see Cheng, D., *TPDS July 2021 1702-1712*
- Zhang, J.**, see Gong, X., *TPDS March 2021 500-513*
- Zhang, J.**, see Zhang, P., *TPDS June 2021 1293-1306*
- Zhang, J.**, see Ye, Q., *TPDS July 2021 1753-1764*
- Zhang, J.**, Zhou, X., Ge, T., Wang, X., and Hwang, T., Joint Task Scheduling and Containerizing for Efficient Edge Computing ; *TPDS Aug. 2021 2086-2100*
- Zhang, J.**, see Shi, L., *TPDS Nov. 2021 2661-2675*
- Zhang, J.**, see Wang, S., *TPDS Nov. 2021 2838-2851*
- Zhang, L.**, see Li, W., *TPDS May 2021 1146-1160*
- Zhang, P.**, Xue, H., Gao, S., and Zhang, J., Distributed Adaptive Consensus Tracking Control for Multi-Agent System With Communication Constraints; *TPDS June 2021 1293-1306*
- Zhang, P.**, see Li, Q., *TPDS Nov. 2021 2676-2690*
- Zhang, Q.**, see Chen, Y., *TPDS Aug. 2021 2049-2061*
- Zhang, S.**, see Chen, N., *TPDS April 2021 830-841*
- Zhang, S.**, see Zhang, F., *TPDS Sept. 2021 2303-2320*
- Zhang, S.**, Qian, Z., Wu, J., Jin, Y., and Lu, S., DeepSlicing: Collaborative and Adaptive CNN Inference With Low Latency; *TPDS Sept. 2021 2175-2187*
- Zhang, S.**, see Zhang, S., *TPDS Sept. 2021 2175-2187*
- Zhang, T.**, Ren, F., Bao, J., Shu, R., and Cheng, W., Minimizing Coflow Completion Time in Optical Circuit Switched Networks ; *TPDS Feb. 2021 457-469*
- Zhang, W.**, see Qiu, X., *TPDS May 2021 1085-1101*
- Zhang, W.**, see Hao, M., *TPDS July 2021 1789-1801*
- Zhang, X.**, see Zhang, C., *TPDS July 2021 1740-1752*
- Zhang, X.**, see Li, Q., *TPDS July 2021 1866-1877*
- Zhang, X.**, Tang, Z., Du, L., and Yang, L., An Incremental Iterative Acceleration Architecture in Distributed Heterogeneous Environments With GPUs for Deep Learning; *TPDS Nov. 2021 2823-2837*
- Zhang, Y.**, see Gong, S., *TPDS April 2021 746-759*
- Zhang, Y.**, see Cheng, D., *TPDS July 2021 1702-1712*
- Zhang, Y.**, see Hu, Z., *TPDS Sept. 2021 2188-2201*
- Zhao, C.**, see Li, Y., *TPDS Feb. 2021 426-440*
- Zhao, C.**, see Zhang, C., *TPDS Nov. 2021 2631-2634*
- Zhao, G.**, Xu, H., Fan, J., Huang, L., and Qiao, C., Achieving Fine-Grained Flow Management Through Hybrid Rule Placement in SDNs ; *TPDS March 2021 728-742*
- Zhao, G.**, Xu, H., Zhao, Y., Qiao, C., and Huang, L., Offloading Tasks With Dependency and Service Caching in Mobile Edge Computing; *TPDS Nov. 2021 2777-2792*
- Zhao, H.**, see Cui, W., *TPDS June 2021 1307-1321*
- Zhao, K.**, Di, S., Li, S., Liang, X., Zhai, Y., Chen, J., Ouyang, K., Cappello, F., and Chen, Z., FT-CNN: Algorithm-Based Fault Tolerance for Convolutional Neural Networks; *TPDS July 2021 1677-1689*
- Zhao, L.**, see Xu, Z., *TPDS April 2021 799-814*
- Zhao, L.**, Wang, Q., Wang, C., Li, Q., Shen, C., and Feng, B., VeriML: Enabling Integrity Assurances and Fair Payments for Machine Learning as a Service; *TPDS Oct. 2021 2524-2540*
- Zhao, N.**, Tarasov, V., Albahar, H., Anwar, A., Rupprecht, L., Skourtis, D., Paul, A.K., Chen, K., and Butt, A.R., Large-Scale Analysis of Docker Images and Performance Implications for Container Storage Systems; *TPDS April 2021 918-930*
- Zhao, Y.**, see Meng, T., *TPDS June 2021 1369-1382*
- Zhao, Y.**, see Zhao, G., *TPDS Nov. 2021 2777-2792*
- Zhao, Y.**, Liu, Z., Wu, Y., Jiang, G., Cheng, J., Liu, K., and Yan, X., Time-stamped State Sharing for Stream Analytics; *TPDS Nov. 2021 2691-2704*
- Zhao, Y.**, see Luo, L., *TPDS Nov. 2021 2705-2718*
- Zheng, B.**, see Pandey, S., *TPDS Nov. 2021 2646-2660*
- Zheng, L.**, see Liu, X., *TPDS April 2021 975-987*
- Zheng, L.**, see Zhang, C., *TPDS Nov. 2021 2631-2634*
- Zheng, Q.**, see Chen, Y., *TPDS Feb. 2021 485-499*
- Zheng, Q.**, see Liang, X., *TPDS March 2021 587-600*
- Zheng, W.**, see Li, X., *TPDS July 2021 1690-1701*
- Zheng, Y.**, see Tang, L., *TPDS Feb. 2021 355-366*
- Zheng, Z.**, Shi, X., He, L., Jin, H., Wei, S., Dai, H., and Peng, X., Feluca: A Two-Stage Graph Coloring Algorithm With Color-Centric Paradigm on GPU; *TPDS Jan. 2021 160-173*
- Zheng, Z.**, see Qiu, X., *TPDS May 2021 1085-1101*
- Zheng, Z.**, see Yu, H., *TPDS Sept. 2021 2202-2215*
- Zhong, R.**, see Yu, T., *TPDS May 2021 1224-1237*
- Zhong, S.**, see Mao, Y., *TPDS July 2021 1777-1788*
- Zhong, S.**, see Pandey, S., *TPDS Nov. 2021 2646-2660*
- Zhou, A.C.**, see Zhang, F., *TPDS Sept. 2021 2262-2276*
- Zhou, H.**, see Zambre, R., *TPDS Dec. 2021 3038-3052*
- Zhou, J.**, see Dong, S., *TPDS Oct. 2021 2448-2463*
- Zhou, P.**, see Wang, C., *TPDS Feb. 2021 394-410*
- Zhou, P.**, see Xu, Z., *TPDS April 2021 799-814*
- Zhou, Q.**, Wang, K., Lu, H., Xu, W., Sun, Y., and Guo, S., Canary: Decentralized Distributed Deep Learning Via Gradient Sketch and Partition in Multi-Interface Networks; *TPDS April 2021 900-917*
- Zhou, Q.**, Guo, S., Qu, Z., Li, P., Li, L., Guo, M., and Wang, K., Petrel: Heterogeneity-Aware Distributed Deep Learning Via Hybrid Synchronization; *TPDS May 2021 1030-1043*
- Zhou, T.**, Gao, L., and Guan, X., A Fault-Tolerant Distributed Framework for Asynchronous Iterative Computations; *TPDS Aug. 2021 2062-2073*
- Zhou, X.**, see Gong, L., *TPDS July 2021 1854-1865*
- Zhou, X.**, see Zhang, J., *TPDS Aug. 2021 2086-2100*
- Zhou, X.**, see Wang, S., *TPDS Sept. 2021 2144-2159*
- Zhu, B.**, Jiang, Y., Gu, M., and Deng, Y., A GPU Acceleration Framework for Motif and Discord Based Pattern Mining; *TPDS Aug. 2021 1987-2004*
- Zhu, J.**, see Chen, L., *TPDS Dec. 2021 3066-3080*
- Zhu, X.**, see Du, J., *TPDS July 2021 1665-1676*
- Zhu, Y.**, see Ding, T., *TPDS April 2021 855-866*
- Zhu, Z.**, see Rafique, M.M., *TPDS Nov. 2021 2734-2747*
- Zomaya, A.Y.**, see Xiao, G., *TPDS Jan. 2021 131-146*
- Zomaya, A.Y.**, see Wang, J., *TPDS Jan. 2021 242-253*
- Zomaya, A.Y.**, see Huang, T., *TPDS July 2021 1552-1564*
- Zomaya, A.Y.**, see Barika, M., *TPDS Aug. 2021 2115-2130*
- Zomaya, A.Y.**, see Deng, S., *TPDS Aug. 2021 1918-1932*
- Zong, Z.**, see Blakeney, C., *TPDS July 2021 1765-1776*
- Zou, P.**, see Ge, R., *TPDS Oct. 2021 2464-2476*
- Zuo, Z.**, see Gu, R., *TPDS April 2021 867-883*
- Zwaenepoel, W.**, see Spirovska, K., *TPDS March 2021 527-542*

SUBJECT INDEX

Numeric

3G mobile communication

A Unified Framework for Flexible Playback Latency Control in Live Video Streaming. *Zhang, G., +, TPDS Dec. 2021 3024-3037*

A

Acceleration

- Accelerating the Bron-Kerbosch Algorithm for Maximal Clique Enumeration Using GPUs. *Yi-Wen, W.*, +, *TPDS Sept. 2021 2352-2366*
- An Efficient Parallel Secure Machine Learning Framework on GPUs. *Zhang, F.*, +, *TPDS Sept. 2021 2262-2276*
- Analysis of GPU Data Access Patterns on Complex Geometries for the D3Q19 Lattice Boltzmann Algorithm. *Herschlag, G.*, +, *TPDS Oct. 2021 2400-2414*
- gIM: GPU Accelerated RIS-Based Influence Maximization Algorithm. *Shahrouz, S.*, +, *TPDS Oct. 2021 2386-2399*
- Spartan: A Sparsity-Adaptive Framework to Accelerate Deep Neural Network Training on GPUs. *Dong, S.*, +, *TPDS Oct. 2021 2448-2463*

Ad hoc networks

- Learning Spatiotemporal Failure Dependencies for Resilient Edge Computing Services. *Aral, A.*, +, *TPDS July 2021 1578-1590*

Adaptation models

- Optimizing Resource Allocation for Data-Parallel Jobs Via GCN-Based Prediction. *Hu, Z.*, +, *TPDS Sept. 2021 2188-2201*

Adaptive control

- Distributed Adaptive Consensus Tracking Control for Multi-Agent System With Communication Constraints. *Zhang, P.*, +, *TPDS June 2021 1293-1306*

Aerodynamics

- Group Reassignment for Dynamic Edge Partitioning. *Li, H.*, +, *TPDS Oct. 2021 2477-2490*

Aggregates

- Octans: Optimal Placement of Service Function Chains in Many-Core Systems. *Yu, H.*, +, *TPDS Sept. 2021 2202-2215*
- MCFsyn: A Multi-Party Set Reconciliation Protocol With the Marked Cuckoo Filter. *Luo, L.*, +, *TPDS Nov. 2021 2705-2718*

AI chips

- Accelerating Binarized Neural Networks via Bit-Tensor-Cores in Turing GPUs. *Li, A.*, +, *TPDS July 2021 1878-1891*

Algebra

- Analysis of Global and Local Synchronization in Parallel Computing. *Cicirelli, F.*, +, *TPDS May 2021 988-1000*
- WindFlow: High-Speed Continuous Stream Processing With Parallel Building Blocks. *Mencagli, G.*, +, *TPDS Nov. 2021 2748-2763*

Analytical models

- Critique of “Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility” by SCC Team From ETH Zurich. *Burger, M.*, +, *TPDS Nov. 2021 2627-2630*
- Modeling and Analyzing Waiting Policies for Cloud-Enabled Schedulers. *Ambati, P.*, +, *TPDS Dec. 2021 3081-3100*

Android (operating system)

- Systematically Landing Machine Learning onto Market-Scale Mobile Malware Detection. *Gong, L.*, +, *TPDS July 2021 1615-1628*

Anomaly detection

- Efficient Forwarding Anomaly Detection in Software-Defined Networks. *Li, Q.*, +, *TPDS Nov. 2021 2676-2690*

Application program interfaces

- A Runtime and Non-Intrusive Approach to Optimize EDP by Tuning Threads and CPU Frequency for OpenMP Applications. *Schwarzrock, J.*, +, *TPDS July 2021 1713-1724*
- CASpMV: A Customized and Accelerative SpMV Framework for the Sunway TaihuLight. *Xiao, G.*, +, *TPDS Jan. 2021 131-146*
- Fine-Grained Powercap Allocation for Power-Constrained Systems Based on Multi-Objective Machine Learning. *Hao, M.*, +, *TPDS July 2021 1789-1801*
- High-Performance Computing Implementations of Agent-Based Economic Models for Realizing 1:1 Scale Simulations of Large Economies. *Gill, A.*, +, *TPDS Aug. 2021 2101-2114*
- Lewat: A Lightweight, Efficient, and Wear-Aware Transactional Persistent Memory System. *Huang, K.*, +, *TPDS March 2021 649-664*
- Middleware to Manage Fault Tolerance Using Semi-Coordinated Checkpoints. *Wong, A.*, +, *TPDS Feb. 2021 254-268*

- Partitioning-Based Scheduling of OpenMP Task Systems With Tied Tasks. *Wang, Y.*, +, *TPDS June 2021 1322-1339*
- Pebbles: Leveraging Sketches for Processing Voluminous, High Velocity Data Streams. *Buddhika, T.*, +, *TPDS Aug. 2021 2005-2020*
- Profiles of Upcoming HPC Applications and Their Impact on Reservation Strategies. *Gainaru, A.*, +, *TPDS May 2021 1178-1190*
- SEIZE: Runtime Inspection for Parallel Dataflow Systems. *Li, Y.*, +, *TPDS April 2021 842-854*
- Subutai: Speeding Up Legacy Parallel Applications Through Data Synchronization. *Cataldo, R.*, +, *TPDS May 2021 1102-1116*

Application specific integrated circuits

- Hardware Accelerator Integration Tradeoffs for High-Performance Computing: A Case Study of GEMM Acceleration in N-Body Methods. *Asri, M.*, +, *TPDS Aug. 2021 2035-2048*

Approximation algorithms

- Efficient Virtual Network Embedding of Cloud-Based Data Center Networks into Optical Networks. *Fan, W.*, +, *TPDS Nov. 2021 2793-2808*
- Improved MPC Algorithms for Edit Distance and Ulam Distance. *Boroujeni, M.*, +, *TPDS Nov. 2021 2764-2776*
- Offloading Tasks With Dependency and Service Caching in Mobile Edge Computing. *Zhao, G.*, +, *TPDS Nov. 2021 2777-2792*

Approximation theory

- A Parallel Structured Divide-and-Conquer Algorithm for Symmetric Tridiagonal Eigenvalue Problems. *Liao, X.*, +, *TPDS Feb. 2021 367-378*
- Bi-Objective Optimization of Data-Parallel Applications on Heterogeneous HPC Platforms for Performance and Energy Through Workload Distribution. *Khaleghzadeh, H.*, +, *TPDS March 2021 543-560*
- Distributed and Dynamic Service Placement in Pervasive Edge Computing Networks. *Ning, Z.*, +, *TPDS June 2021 1277-1292*
- Fast Adaptive Task Offloading in Edge Computing Based on Meta Reinforcement Learning. *Wang, J.*, +, *TPDS Jan. 2021 242-253*
- Minimizing Coflow Completion Time in Optical Circuit Switched Networks. *Zhang, T.*, +, *TPDS Feb. 2021 457-469*

Arrays

- Trust: Triangle Counting Reloaded on GPUs. *Pandey, S.*, +, *TPDS Nov. 2021 2646-2660*
- YuenyeungSpTRSV: A Thread-Level and Warp-Level Fusion Synchronization-Free Sparse Triangular Solve. *Zhang, F.*, +, *TPDS Sept. 2021 2321-2337*

Artificial intelligence

- Guest Editorial. *Balaji, P.*, +, *TPDS July 2021 1511-1512*
- Profiles of Upcoming HPC Applications and Their Impact on Reservation Strategies. *Gainaru, A.*, +, *TPDS May 2021 1178-1190*

Artificial neural networks

- BALS: Blocked Alternating Least Squares for Parallel Sparse Matrix Factorization on GPUs. *Chen, J.*, +, *TPDS Sept. 2021 2291-2302*

Auditing

- BOSSA: A Decentralized System for Proofs of Data Retrievability and Replication. *Chen, D.*, +, *TPDS April 2021 786-798*

Augmented reality

- Cuttlefish: Neural Configuration Adaptation for Video Analysis in Live Augmented Reality. *Chen, N.*, +, *TPDS April 2021 830-841*

Authorization

- Comment on “Circuit Ciphertext-Policy Attribute-Based Hybrid Encryption With Verifiable Delegation in Cloud Computing”. *Cao, Z.*, +, *TPDS Feb. 2021 392-393*
- QShield: Protecting Outsourced Cloud Data Queries With Multi-User Access Control Based on SGX. *Chen, Y.*, +, *TPDS Feb. 2021 485-499*

Automatic optical inspection

- A Hybrid Fuzzy Convolutional Neural Network Based Mechanism for Photovoltaic Cell Defect Detection With Electroluminescence Images. *Ge, C.*, +, *TPDS July 2021 1653-1664*

B

Backpropagation

- Accelerating End-to-End Deep Learning Workflow With Codesign of Data Preprocessing and Scheduling. *Cheng, Y.*, +, *TPDS July 2021 1802-1814*

MG-WFBP: Merging Gradients Wisely for Efficient Communication in Distributed Deep Learning. *Shi, S.*, +, *TPDS Aug. 2021 1903-1917*

Bandwidth

Coflow Scheduling in Data Centers: Routing and Bandwidth Allocation. *Shi, L.*, +, *TPDS Nov. 2021 2661-2675*

Efficient Virtual Network Embedding of Cloud-Based Data Center Networks into Optical Networks. *Fan, W.*, +, *TPDS Nov. 2021 2793-2808*

Fine-Grained Multi-Query Stream Processing on Integrated Architectures. *Zhang, F.*, +, *TPDS Sept. 2021 2303-2320*

Joint SFC Deployment and Resource Management in Heterogeneous Edge for Latency Minimization. *Liu, Y.*, +, *TPDS Aug. 2021 2131-2143*

Memory-Side Prefetching Scheme Incorporating Dynamic Page Mode in 3D-Stacked DRAM. *Rafique, M.M.*, +, *TPDS Nov. 2021 2734-2747*

PISTIS: An Event-Triggered Real-Time Byzantine-Resilient Protocol Suite. *Kozhaya, D.*, +, *TPDS Sept. 2021 2277-2290*

Bandwidth allocation

A Case for Pricing Bandwidth: Sharing Datacenter Networks With Cost Dominant Fairness. *Chen, L.*, +, *TPDS May 2021 1256-1269*

Batch processing (computers)

Optimised Lambda Architecture for Monitoring Scientific Infrastructure. *Suthakar, U.*, +, *TPDS June 2021 1395-1408*

Bayes methods

A Probabilistic Machine Learning Approach to Scheduling Parallel Loops With Bayesian Optimization. *Kim, K.*, +, *TPDS July 2021 1815-1827*

SmartTuning: Selecting Hyper-Parameters of a ConvNet System for Fast Training and Small Working Memory. *Li, X.*, +, *TPDS July 2021 1690-1701*

Benchmark testing

Efficient Buffer Overflow Detection on GPU. *Di, B.*, +, *TPDS May 2021 1161-1177*

Fast, Accurate Processor Evaluation Through Heterogeneous, Sample-Based Benchmarking. *Prieto, P.*, +, *TPDS Dec. 2021 2983-2995*

Multi-GPU Parallelization of the NAS Multi-Zone Parallel Benchmarks. *Gonzalez, M.*, +, *TPDS Jan. 2021 229-241*

Big Data

A GPU Acceleration Framework for Motif and Discord Based Pattern Mining. *Zhu, B.*, +, *TPDS Aug. 2021 1987-2004*

GML: Efficiently Auto-Tuning Flink's Configurations Via Guided Machine Learning. *Guo, Y.*, +, *TPDS Dec. 2021 2921-2935*

Network-Aware Locality Scheduling for Distributed Data Operators in Data Centers. *Cheng, L.*, +, *TPDS June 2021 1494-1510*

Online Scheduling Technique To Handle Data Velocity Changes in Stream Workflows. *Barika, M.*, +, *TPDS Aug. 2021 2115-2130*

Profiles of Upcoming HPC Applications and Their Impact on Reservation Strategies. *Gainaru, A.*, +, *TPDS May 2021 1178-1190*

SGD\$\backslash\$Tucker: A Novel Stochastic Optimization Strategy for Parallel Sparse Tucker Decomposition. *Li, H.*, +, *TPDS July 2021 1828-1841*

Towards Efficient Distributed Subgraph Enumeration Via Backtracking-Based Framework. *Wang, Z.*, +, *TPDS Dec. 2021 2953-2969*

Bin packing

Elastic Scheduling for Microservice Applications in Clouds. *Wang, S.*, +, *TPDS Jan. 2021 98-115*

Bioinformatics

A High-Throughput FPGA Accelerator for Short-Read Mapping of the Whole Human Genome. *Chen, Y.*, +, *TPDS June 2021 1465-1478*

PaKman: A Scalable Algorithm for Generating Genomic Contigs on Distributed Memory Machines. *Ghosh, P.*, +, *TPDS May 2021 1191-1209*

Biological system modeling

Accurate Differentially Private Deep Learning on the Edge. *Han, R.*, +, *TPDS Sept. 2021 2231-2247*

Bit rate

A Unified Framework for Flexible Playback Latency Control in Live Video Streaming. *Zhang, G.*, +, *TPDS Dec. 2021 3024-3037*

Blockchain

LightChain: Scalable DHT-Based Blockchain. *Hassanzadeh-Nazarabadi, Y.*, +, *TPDS Oct. 2021 2582-2593*

Blockchains

e-PoS: Making Proof-of-Stake Decentralized and Fair. *Saad, M.*, +, *TPDS Aug. 2021 1961-1973*

On Consortium Blockchain Consistency: A Queueing Network Model Approach. *Meng, T.*, +, *TPDS June 2021 1369-1382*

Buffer storage

Efficient Buffer Overflow Detection on GPU. *Di, B.*, +, *TPDS May 2021 1161-1177*

C

Cache storage

A Runtime and Non-Intrusive Approach to Optimize EDP by Tuning Threads and CPU Frequency for OpenMP Applications. *Schwarzrock, J.*, +, *TPDS July 2021 1713-1724*

Auditing Cache Data Integrity in the Edge Computing Environment. *Li, B.*, +, *TPDS May 2021 1210-1223*

Canary: Decentralized Distributed Deep Learning Via Gradient Sketch and Partition in Multi-Interface Networks. *Zhou, Q.*, +, *TPDS April 2021 900-917*

Co-Active: A Workload-Aware Collaborative Cache Management Scheme for NVMe SSDs. *Sun, H.*, +, *TPDS June 2021 1437-1451*

Failure-Atomic Byte-Addressable R-tree for Persistent Memory. *Cho, S.*, +, *TPDS March 2021 601-614*

Improving the Performance of Deduplication-Based Storage Cache via Content-Driven Cache Management Methods. *Tan, Y.*, +, *TPDS Jan. 2021 214-228*

Large-Scale Analysis of Docker Images and Performance Implications for Container Storage Systems. *Zhao, N.*, +, *TPDS April 2021 918-930*

Lewat: A Lightweight, Efficient, and Wear-Aware Transactional Persistent Memory System. *Huang, K.*, +, *TPDS March 2021 649-664*

Cellular automata

Dynamic Load Balancing in Parallel Execution of Cellular Automata. *Giordano, A.*, +, *TPDS Feb. 2021 470-484*

Central Processing Unit

Accelerating the Bron-Kerbosch Algorithm for Maximal Clique Enumeration Using GPUs. *Yi-Wen, W.*, +, *TPDS Sept. 2021 2352-2366*

The Case for Cross-Component Power Coordination on Power Bounded Systems. *Ge, R.*, +, *TPDS Oct. 2021 2464-2476*

Centralized control

CPDE: A Methodology for the Transparent Distribution of Centralized Smart Grid Programs. *Nguyen, T.T.Q.*, +, *TPDS Feb. 2021 342-354*

Channel allocation

Coflow Scheduling in Data Centers: Routing and Bandwidth Allocation. *Shi, L.*, +, *TPDS Nov. 2021 2661-2675*

Checkpointing

A Fault-Tolerant Distributed Framework for Asynchronous Iterative Computations. *Zhou, T.*, +, *TPDS Aug. 2021 2062-2073*

FT-CNN: Algorithm-Based Fault Tolerance for Convolutional Neural Networks. *Zhao, K.*, +, *TPDS July 2021 1677-1689*

Middleware to Manage Fault Tolerance Using Semi-Coordinated Checkpoints. *Wong, A.*, +, *TPDS Feb. 2021 254-268*

Realizing Best Checkpointing Control in Computing Systems. *Sigdel, P.*, +, *TPDS Feb. 2021 315-329*

Circuit optimization

A Resource and Performance Optimization Reduction Circuit on FPGAs. *Tang, L.*, +, *TPDS Feb. 2021 355-366*

Coarse-Grained Parallel Routing With Recursive Partitioning for FPGAs. *Shen, M.*, +, *TPDS April 2021 884-899*

Hardware Accelerator Integration Tradeoffs for High-Performance Computing: A Case Study of GEMM Acceleration in N-Body Methods. *Asri, M.*, +, *TPDS Aug. 2021 2035-2048*

Client-server systems

A Distributed Framework for EA-Based NAS. *Ye, Q.*, +, *TPDS July 2021 1753-1764*

An Efficiency-Boosting Client Selection Scheme for Federated Learning With Fairness Guarantee. *Huang, T.*, +, *TPDS July 2021 1552-1564*

Clocks

OWebSync: Seamless Synchronization of Distributed Web Clients. *Jannes, K.*, +, *TPDS Sept. 2021 2338-2351*

Resettable Encoded Vector Clock for Causality Analysis With an Application to Dynamic Race Detection. *Pozzetti, T.*, +, *TPDS April 2021 772-785*

Cloud computing

Silhouette: Efficient Cloud Configuration Exploration for Large-Scale Analytics. *Chen, Y.*, +, *TPDS Aug. 2021 2049-2061*

A Case for Pricing Bandwidth: Sharing Datacenter Networks With Cost Dominant Fairness. *Chen, L.*, +, *TPDS May 2021 1256-1269*

A Game-Based Approach for Cost-Aware Task Assignment With QoS Constraint in Collaborative Edge and Cloud Environments. *Long, S.*, +, *TPDS July 2021 1629-1640*

A Generic Stochastic Model for Resource Availability in Fog Computing Environments. *Battula, S.K.*, +, *TPDS April 2021 960-974*

A Quantum Approach Towards the Adaptive Prediction of Cloud Workloads. *Singh, A.K.*, +, *TPDS Dec. 2021 2893-2905*

A Scalable Platform for Distributed Object Tracking Across a Many-Camera Network. *Khochare, A.*, +, *TPDS June 2021 1479-1493*

A Scalable Stateful Approach for Virtual Security Functions Orchestration. *Moradi, N.*, +, *TPDS June 2021 1383-1394*

A Survey of System Architectures and Techniques for FPGA Virtualization. *Quraishi, M.H.*, +, *TPDS Sept. 2021 2216-2230*

ADRL: A Hybrid Anomaly-Aware Deep Reinforcement Learning-Based Resource Scaling in Clouds. *Kardani-Moghaddam, S.*, +, *TPDS March 2021 514-526*

Auditing Cache Data Integrity in the Edge Computing Environment. *Li, B.*, +, *TPDS May 2021 1210-1223*

Burst Load Evacuation Based on Dispatching and Scheduling In Distributed Edge Networks. *Deng, S.*, +, *TPDS Aug. 2021 1918-1932*

Canary: Decentralized Distributed Deep Learning Via Gradient Sketch and Partition in Multi-Interface Networks. *Zhou, Q.*, +, *TPDS April 2021 900-917*

Comment on "Circuit Ciphertext-Policy Attribute-Based Hybrid Encryption With Verifiable Delegation in Cloud Computing". *Cao, Z.*, +, *TPDS Feb. 2021 392-393*

Cost-Effective App Data Distribution in Edge Computing. *Xia, X.*, +, *TPDS Jan. 2021 31-44*

Cryptomining Detection in Container Clouds Using System Calls and Explainable Machine Learning. *Karn, R.R.*, +, *TPDS March 2021 674-691*

Distributed and Collective Deep Reinforcement Learning for Computation Offloading: A Practical Perspective. *Qiu, X.*, +, *TPDS May 2021 1085-1101*

Distributed and Dynamic Service Placement in Pervasive Edge Computing Networks. *Ning, Z.*, +, *TPDS June 2021 1277-1292*

Elastic Scheduling for Microservice Applications in Clouds. *Wang, S.*, +, *TPDS Jan. 2021 98-115*

Energy-Aware Inference Offloading for DNN-Driven Applications in Mobile Edge Clouds. *Xu, Z.*, +, *TPDS April 2021 799-814*

FRATO: Fog Resource Based Adaptive Task Offloading for Delay-Minimizing IoT Service Provisioning. *Tran-Dang, H.*, +, *TPDS Oct. 2021 2491-2508*

Hierarchical Multi-Agent Optimization for Resource Allocation in Cloud Computing. *Gao, X.*, +, *TPDS March 2021 692-707*

Investigating the Adoption of Hybrid Encrypted Cloud Data Deduplication With Game Theory. *Liang, X.*, +, *TPDS March 2021 587-600*

Large-Scale Analysis of Docker Images and Performance Implications for Container Storage Systems. *Zhao, N.*, +, *TPDS April 2021 918-930*

Learning Spatiotemporal Failure Dependencies for Resilient Edge Computing Services. *Aral, A.*, +, *TPDS July 2021 1578-1590*

MCFsyn: A Multi-Party Set Reconciliation Protocol With the Marked Cuckoo Filter. *Luo, L.*, +, *TPDS Nov. 2021 2705-2718*

Modeling and Analyzing Waiting Policies for Cloud-Enabled Schedulers. *Ambati, P.*, +, *TPDS Dec. 2021 3081-3100*

Modeling and Optimization of Performance and Cost of Serverless Applications. *Lin, C.*, +, *TPDS March 2021 615-632*

Multi-Agent Imitation Learning for Pervasive Edge Computing: A Decentralized Computation Offloading Algorithm. *Wang, X.*, +, *TPDS Feb. 2021 411-425*

Multi-Queue Request Scheduling for Profit Maximization in IaaS Clouds. *Wang, S.*, +, *TPDS Nov. 2021 2838-2851*

Optimised Lambda Architecture for Monitoring Scientific Infrastructure. *Suthakar, U.*, +, *TPDS June 2021 1395-1408*

Privacy-Preserving Multi-Keyword Searchable Encryption for Distributed Systems. *Liu, X.*, +, *TPDS March 2021 561-574*

Privacy-Preserving Similarity Search With Efficient Updates in Distributed Key-Value Stores. *Lin, W.*, +, *TPDS May 2021 1072-1084*

QShield: Protecting Outsourced Cloud Data Queries With Multi-User Access Control Based on SGX. *Chen, Y.*, +, *TPDS Feb. 2021 485-499*

ReliableBox: Secure and Verifiable Cloud Storage With Location-Aware Backup. *Jiang, T.*, +, *TPDS Dec. 2021 2996-3010*

RENDa: Resource and Network Aware Data Placement Algorithm for Periodic Workloads in Cloud. *Thakkar, H.K.*, +, *TPDS Dec. 2021 2906-2920*

Rusty: Runtime Interference-Aware Predictive Monitoring for Modern Multi-Tenant Systems. *Masouros, D.*, +, *TPDS Jan. 2021 184-198*

Structured Allocation-Based Consistent Hashing With Improved Balancing for Cloud Infrastructure. *Nakatani, Y.*, *TPDS Sept. 2021 2248-2261*

Thermal Prediction for Efficient Energy Management of Clouds Using Machine Learning. *Ilager, S.*, +, *TPDS May 2021 1044-1056*

Towards Minimizing Resource Usage With QoS Guarantee in Cloud Gaming. *Li, Y.*, +, *TPDS Feb. 2021 426-440*

Clustering algorithms

Critique of "Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility" by SCC Team From Tsinghua University. *Zhang, C.*, +, *TPDS Nov. 2021 2631-2634*

Optimizing the LINPACK Algorithm for Large-Scale PCIe-Based CPU-GPU Heterogeneous Systems. *Tan, G.*, +, *TPDS Sept. 2021 2367-2380*

Collaborative software

OWebSync: Seamless Synchronization of Distributed Web Clients. *Jannes, K.*, +, *TPDS Sept. 2021 2338-2351*

Collision avoidance

Distributed Adaptive Consensus Tracking Control for Multi-Agent System With Communication Constraints. *Zhang, P.*, +, *TPDS June 2021 1293-1306*

Communicating sequential processes

Reversible CSP Computations. *Galindo, C.*, +, *TPDS June 2021 1425-1436*

Communication complexity

A Scalable Multi-Layer PBFT Consensus for Blockchain. *Li, W.*, +, *TPDS May 2021 1146-1160*

Complex networks

Recent Advances of Resource Allocation in Network Function Virtualization. *Yang, S.*, +, *TPDS Feb. 2021 295-314*

Complexity theory

Improved MPC Algorithms for Edit Distance and Ulam Distance. *Boroujeni, M.*, +, *TPDS Nov. 2021 2764-2776*

LightChain: Scalable DHT-Based Blockchain. *Hassanzadeh-Nazarabadi, Y.*, +, *TPDS Oct. 2021 2582-2593*

Computational complexity

A Distributed Framework for EA-Based NAS. *Ye, Q.*, +, *TPDS July 2021 1753-1764*

A Scalable Stateful Approach for Virtual Security Functions Orchestration. *Moradi, N.*, +, *TPDS June 2021 1383-1394*

Boosting Parallel Influence-Maximization Kernels for Undirected Networks With Fusing and Vectorization. *Gokturk, G.*, +, *TPDS May 2021 1001-1013*

Cost-Effective App Data Distribution in Edge Computing. *Xia, X.*, +, *TPDS Jan. 2021 31-44*

Distributed Task Migration Optimization in MEC by Extending Multi-Agent Deep Reinforcement Learning Approach. *Liu, C.*, +, *TPDS July 2021 1603-1614*

Homomorphic Sorting With Better Scalability. *Cetin, G.S.*, +, *TPDS April 2021 760-771*

Minimizing Coflow Completion Time in Optical Circuit Switched Networks. *Zhang, T.*, +, *TPDS Feb. 2021 457-469*

- Multi-Hop Multi-Task Partial Computation Offloading in Collaborative Edge Computing. *Sahni, Y., +, TPDS May 2021 1133-1145*
- O3BNN-R: An Out-of-Order Architecture for High-Performance and Regularized BNN Inference. *Geng, T., +, TPDS Jan. 2021 199-213*
- Online Collaborative Data Caching in Edge Computing. *Xia, X., +, TPDS Feb. 2021 281-294*
- Privacy-Preserving Similarity Search With Efficient Updates in Distributed Key-Value Stores. *Lin, W., +, TPDS May 2021 1072-1084*
- Towards Efficient Scheduling of Federated Mobile Devices Under Computational and Statistical Heterogeneity. *Wang, C., +, TPDS Feb. 2021 394-410*
- Computational efficiency**
- Fast, Accurate Processor Evaluation Through Heterogeneous, Sample-Based Benchmarking. *Prieto, P., +, TPDS Dec. 2021 2983-2995*
- Computational modeling**
- 3D Perception With Slanted Stixels on GPU. *Hernandez-Juarez, D., +, TPDS Oct. 2021 2434-2447*
- A Split Execution Model for SpTRSV. *Ahmad, N., +, TPDS Nov. 2021 2809-2822*
- An Incremental Iterative Acceleration Architecture in Distributed Heterogeneous Environments With GPUs for Deep Learning. *Zhang, X., +, TPDS Nov. 2021 2823-2837*
- Analysis of GPU Data Access Patterns on Complex Geometries for the D3Q19 Lattice Boltzmann Algorithm. *Herschlag, G., +, TPDS Oct. 2021 2400-2414*
- ARENA: Asynchronous Reconfigurable Accelerator Ring to Enable Data-Centric Parallel Computing. *Tan, C., +, TPDS Dec. 2021 2880-2892*
- Critique of “Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility” by SCC Team From National Tsing Hua University. *Sun, W., +, TPDS Nov. 2021 2623-2626*
- Critique of “Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility” by SCC Team From Peking University. *Cheng, Y., +, TPDS Nov. 2021 2643-2645*
- Critique of “Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility” by SCC Team From Tsinghua University. *Zhang, C., +, TPDS Nov. 2021 2631-2634*
- Critique of “Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility” by SCC Team From University of Warsaw. *Masiak, M., +, TPDS Nov. 2021 2635-2638*
- Critique of “Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility” by SCC Team From University of Washington. *Liu, D., +, TPDS Nov. 2021 2639-2642*
- DeepSlicing: Collaborative and Adaptive CNN Inference With Low Latency. *Zhang, S., +, TPDS Sept. 2021 2175-2187*
- DTransE: Distributed Translating Embedding for Knowledge Graph. *Song, D., +, TPDS Oct. 2021 2509-2523*
- Efficient Data Loader for Fast Sampling-Based GNN Training on Large Graphs. *Bai, Y., +, TPDS Oct. 2021 2541-2556*
- gIM: GPU Accelerated RIS-Based Influence Maximization Algorithm. *Shahrouz, S., +, TPDS Oct. 2021 2386-2399*
- High Performance Multivariate Geospatial Statistics on Manycore Systems. *Salvana, M.L.O., +, TPDS Nov. 2021 2719-2733*
- Improved MPC Algorithms for Edit Distance and Ulam Distance. *Boroujeni, M., +, TPDS Nov. 2021 2764-2776*
- Modeling and Analyzing Waiting Policies for Cloud-Enabled Schedulers. *Ambati, P., +, TPDS Dec. 2021 3081-3100*
- Online Scheduling Technique To Handle Data Velocity Changes in Stream Workflows. *Barika, M., +, TPDS Aug. 2021 2115-2130*
- Overlapping Communication With Computation in Parameter Server for Scalable DL Training. *Wang, S., +, TPDS Sept. 2021 2144-2159*
- Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility. *Shi, J., +, TPDS Nov. 2021 2609-2622*
- VeriML: Enabling Integrity Assurances and Fair Payments for Machine Learning as a Service. *Zhao, L., +, TPDS Oct. 2021 2524-2540*
- Computer architecture**
- A Survey of System Architectures and Techniques for FPGA Virtualization. *Quraishi, M.H., +, TPDS Sept. 2021 2216-2230*
- Accelerating the Bron-Kerbosch Algorithm for Maximal Clique Enumeration Using GPUs. *Yi-Wen, W., +, TPDS Sept. 2021 2352-2366*
- An Elastic Task Scheduling Scheme on Coarse-Grained Reconfigurable Architectures. *Chen, L., +, TPDS Dec. 2021 3066-3080*
- Architectural Adaptation and Performance-Energy Optimization for CFD Application on AMD EPYC Rome. *Szustak, L., +, TPDS Dec. 2021 2852-2866*
- ARENA: Asynchronous Reconfigurable Accelerator Ring to Enable Data-Centric Parallel Computing. *Tan, C., +, TPDS Dec. 2021 2880-2892*
- Critique of “Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility” by SCC Team From National Tsing Hua University. *Sun, W., +, TPDS Nov. 2021 2623-2626*
- ETICA: Efficient Two-Level I/O Caching Architecture for Virtualized Platforms. *Ahmadian, S., +, TPDS Oct. 2021 2415-2433*
- Fine-Grained Multi-Query Stream Processing on Integrated Architectures. *Zhang, F., +, TPDS Sept. 2021 2303-2320*
- Optimizing the LINPACK Algorithm for Large-Scale PCIe-Based CPU-GPU Heterogeneous Systems. *Tan, G., +, TPDS Sept. 2021 2367-2380*
- Overlapping Communication With Computation in Parameter Server for Scalable DL Training. *Wang, S., +, TPDS Sept. 2021 2144-2159*
- Computer bugs**
- Identifying Degree and Sources of Non-Determinism in MPI Applications Via Graph Kernels. *Chapp, D., +, TPDS Dec. 2021 2936-2952*
- Computer centers**
- A Case for Pricing Bandwidth: Sharing Datacenter Networks With Cost Dominant Fairness. *Chen, L., +, TPDS May 2021 1256-1269*
- A Game-Based Approach for Cost-Aware Task Assignment With QoS Constraint in Collaborative Edge and Cloud Environments. *Long, S., +, TPDS July 2021 1629-1640*
- A Scalable Stateful Approach for Virtual Security Functions Orchestration. *Moradi, N., +, TPDS June 2021 1383-1394*
- Adaptive Preference-Aware Co-Location for Improving Resource Utilization of Power Constrained Datacenters. *Pang, P., +, TPDS Feb. 2021 441-456*
- Constructing Completely Independent Spanning Trees in Data Center Network Based on Augmented Cube. *Chen, G., +, TPDS March 2021 665-673*
- Design and Evaluation of a Risk-Aware Failure Identification Scheme for Improved RAS in Erasure-Coded Data Centers. *Huang, W., +, TPDS Jan. 2021 16-30*
- Learning Spatiotemporal Failure Dependencies for Resilient Edge Computing Services. *Aral, A., +, TPDS July 2021 1578-1590*
- Network-Aware Locality Scheduling for Distributed Data Operators in Data Centers. *Cheng, L., +, TPDS June 2021 1494-1510*
- Sova: A Software-Defined Autonomic Framework for Virtual Network Allocations. *Ye, Z., +, TPDS Jan. 2021 116-130*
- Thermal Prediction for Efficient Energy Management of Clouds Using Machine Learning. *Ilager, S., +, TPDS May 2021 1044-1056*
- Towards Greening MapReduce Clusters Considering Both Computation Energy and Cooling Energy. *Toha, T.R., +, TPDS April 2021 931-942*
- Computer games**
- Towards Minimizing Resource Usage With QoS Guarantee in Cloud Gaming. *Li, Y., +, TPDS Feb. 2021 426-440*
- Computer network management**
- Adaptive Preference-Aware Co-Location for Improving Resource Utilization of Power Constrained Datacenters. *Pang, P., +, TPDS Feb. 2021 441-456*
- Computer network performance evaluation**
- A Scalable Stateful Approach for Virtual Security Functions Orchestration. *Moradi, N., +, TPDS June 2021 1383-1394*
- On the Effective Parallelization and Near-Optimal Deployment of Service Function Chains. *Luo, J., +, TPDS May 2021 1238-1255*
- Computer network security**
- A Scalable Stateful Approach for Virtual Security Functions Orchestration. *Moradi, N., +, TPDS June 2021 1383-1394*
- Blockchain at the Edge: Performance of Resource-Constrained IoT Networks. *Misra, S., +, TPDS Jan. 2021 174-183*

Computer science

Improved MPC Algorithms for Edit Distance and Ulam Distance. *Boroujeni, M.*, +, *TPDS Nov. 2021 2764-2776*

Computer vision

A Scalable Platform for Distributed Object Tracking Across a Many-Camera Network. *Khochare, A.*, +, *TPDS June 2021 1479-1493*

Parallel Blockwise Knowledge Distillation for Deep Neural Network Compression. *Blakeney, C.*, +, *TPDS July 2021 1765-1776*

Concurrency (computers)

Failure-Atomic Byte-Addressable R-tree for Persistent Memory. *Cho, S.*, +, *TPDS March 2021 601-614*

Control system synthesis

Distributed Adaptive Consensus Tracking Control for Multi-Agent System With Communication Constraints. *Zhang, P.*, +, *TPDS June 2021 1293-1306*

Controller area networks

Reliability and Confidentiality Co-Verification for Parallel Applications in Distributed Systems. *Xie, G.*, +, *TPDS June 2021 1353-1368*

Convergence

Breaking (Global) Barriers in Parallel Stochastic Optimization With Wait-Avoiding Group Averaging. *Li, S.*, +, *TPDS July 2021 1725-1739*

Convergence of numerical methods

A Parallel Jacobi-Embedded Gauss-Seidel Method. *Ahmadi, A.*, +, *TPDS June 2021 1452-1464*

Convolution

Accelerating Binarized Neural Networks via Bit-Tensor-Cores in Turing GPUs. *Li, A.*, +, *TPDS July 2021 1878-1891*

Convolutional neural nets

A Hybrid Fuzzy Convolutional Neural Network Based Mechanism for Photovoltaic Cell Defect Detection With Electroluminescence Images. *Ge, C.*, +, *TPDS July 2021 1653-1664*

FT-CNN: Algorithm-Based Fault Tolerance for Convolutional Neural Networks. *Zhao, K.*, +, *TPDS July 2021 1677-1689*

Improving HW/SW Adaptability for Accelerating CNNs on FPGAs Through A Dynamic/Static Co-Reconfiguration Approach. *Gong, L.*, +, *TPDS July 2021 1854-1865*

Model Parallelism Optimization for Distributed Inference Via Decoupled CNN Structure. *Du, J.*, +, *TPDS July 2021 1665-1676*

Multi-GPU Design and Performance Evaluation of Homomorphic Encryption on GPU Clusters. *Al Badawi, A.*, +, *TPDS Feb. 2021 379-391*

The Case for Strong Scaling in Deep Learning: Training Large 3D CNNs With Hybrid Parallelism. *Oyama, Y.*, +, *TPDS July 2021 1641-1652*

Cooling

Thermal Prediction for Efficient Energy Management of Clouds Using Machine Learning. *Ilager, S.*, +, *TPDS May 2021 1044-1056*

Cost reduction

Online Collaborative Data Caching in Edge Computing. *Xia, X.*, +, *TPDS Feb. 2021 281-294*

Cryptocurrencies

A Scalable Multi-Layer PBFT Consensus for Blockchain. *Li, W.*, +, *TPDS May 2021 1146-1160*

Blockchain at the Edge: Performance of Resource-Constrained IoT Networks. *Misra, S.*, +, *TPDS Jan. 2021 174-183*

Cryptographic protocols

e-PoS: Making Proof-of-Stake Decentralized and Fair. *Saad, M.*, +, *TPDS Aug. 2021 1961-1973*

A Scalable Multi-Layer PBFT Consensus for Blockchain. *Li, W.*, +, *TPDS May 2021 1146-1160*

Privacy-Preserving Similarity Search With Efficient Updates in Distributed Key-Value Stores. *Lin, W.*, +, *TPDS May 2021 1072-1084*

Cryptography

Biscotti: A Blockchain System for Private and Secure Federated Learning. *Shayan, M.*, +, *TPDS July 2021 1513-1525*

Blockchain at the Edge: Performance of Resource-Constrained IoT Networks. *Misra, S.*, +, *TPDS Jan. 2021 174-183*

BOSSA: A Decentralized System for Proofs of Data Retrievability and Replication. *Chen, D.*, +, *TPDS April 2021 786-798*

Cryptomining Detection in Container Clouds Using System Calls and Explainable Machine Learning. *Karn, R.R.*, +, *TPDS March 2021 674-691*

Investigating the Adoption of Hybrid Encrypted Cloud Data Deduplication With Game Theory. *Liang, X.*, +, *TPDS March 2021 587-600*

Multi-GPU Design and Performance Evaluation of Homomorphic Encryption on GPU Clusters. *Al Badawi, A.*, +, *TPDS Feb. 2021 379-391*

Privacy-Preserving Multi-Keyword Searchable Encryption for Distributed Systems. *Liu, X.*, +, *TPDS March 2021 561-574*

QShield: Protecting Outsourced Cloud Data Queries With Multi-User Access Control Based on SGX. *Chen, Y.*, +, *TPDS Feb. 2021 485-499*

D**Data analysis**

Silhouette: Efficient Cloud Configuration Exploration for Large-Scale Analytics. *Chen, Y.*, +, *TPDS Aug. 2021 2049-2061*

Optimised Lambda Architecture for Monitoring Scientific Infrastructure. *Suthakar, U.*, +, *TPDS June 2021 1395-1408*

Pebbles: Leveraging Sketches for Processing Voluminous, High Velocity Data Streams. *Buddhika, T.*, +, *TPDS Aug. 2021 2005-2020*

Data centers

ARENA: Asynchronous Reconfigurable Accelerator Ring to Enable Data-Centric Parallel Computing. *Tan, C.*, +, *TPDS Dec. 2021 2880-2892*

Coflow Scheduling in Data Centers: Routing and Bandwidth Allocation. *Shi, L.*, +, *TPDS Nov. 2021 2661-2675*

Efficient Forwarding Anomaly Detection in Software-Defined Networks. *Li, Q.*, +, *TPDS Nov. 2021 2676-2690*

Efficient Virtual Network Embedding of Cloud-Based Data Center Networks into Optical Networks. *Fan, W.*, +, *TPDS Nov. 2021 2793-2808*

RENDAs: Resource and Network Aware Data Placement Algorithm for Periodic Workloads in Cloud. *Thakkar, H.K.*, +, *TPDS Dec. 2021 2906-2920*

Data compression

Parallel Blockwise Knowledge Distillation for Deep Neural Network Compression. *Blakeney, C.*, +, *TPDS July 2021 1765-1776*

Data flow computing

A Scalable Platform for Distributed Object Tracking Across a Many-Camera Network. *Khochare, A.*, +, *TPDS June 2021 1479-1493*

Data handling

A Two-Phase Dynamic Throughput Optimization Model for Big Data Transfers. *Nine, M.S.Q.Z.*, +, *TPDS Feb. 2021 269-280*

Accelerating End-to-End Deep Learning Workflow With Codesign of Data Preprocessing and Scheduling. *Cheng, Y.*, +, *TPDS July 2021 1802-1814*

Design and Evaluation of a Risk-Aware Failure Identification Scheme for Improved RAS in Erasure-Coded Data Centers. *Huang, W.*, +, *TPDS Jan. 2021 16-30*

SEIZE: Runtime Inspection for Parallel Dataflow Systems. *Li, Y.*, +, *TPDS April 2021 842-854*

Self-Balancing Federated Learning With Global Imbalanced Data in Mobile Systems. *Duan, M.*, +, *TPDS Jan. 2021 59-71*

Towards Greening MapReduce Clusters Considering Both Computation Energy and Cooling Energy. *Toha, T.R.*, +, *TPDS April 2021 931-942*

Data integrity

Achieving Probabilistic Atomicity With Well-Bounded Staleness and Low Read Latency in Distributed Datastores. *Ouyang, L.*, +, *TPDS April 2021 815-829*

Auditing Cache Data Integrity in the Edge Computing Environment. *Li, B.*, +, *TPDS May 2021 1210-1223*

ReliableBox: Secure and Verifiable Cloud Storage With Location-Aware Backup. *Jiang, T.*, +, *TPDS Dec. 2021 2996-3010*

Subutai: Speeding Up Legacy Parallel Applications Through Data Synchronization. *Cataldo, R.*, +, *TPDS May 2021 1102-1116*

Data mining

e-PoS: Making Proof-of-Stake Decentralized and Fair. *Saad, M.*, +, *TPDS Aug. 2021 1961-1973*

A Fault-Tolerant Distributed Framework for Asynchronous Iterative Computations. *Zhou, T.*, +, *TPDS Aug. 2021 2062-2073*

A GPU Acceleration Framework for Motif and Discord Based Pattern Mining. *Zhu, B.*, +, *TPDS Aug. 2021 1987-2004*

- A Two-Phase Dynamic Throughput Optimization Model for Big Data Transfers. *Nine, M.S.Q.Z.*, +, *TPDS Feb. 2021 269-280*
- Blockchain at the Edge: Performance of Resource-Constrained IoT Networks. *Misra, S.*, +, *TPDS Jan. 2021 174-183*
- Cryptomining Detection in Container Clouds Using System Calls and Explainable Machine Learning. *Karn, R.R.*, +, *TPDS March 2021 674-691*
- Proof of Federated Learning: A Novel Energy-Recycling Consensus Algorithm. *Qu, X.*, +, *TPDS Aug. 2021 2074-2085*
- Rings for Privacy: An Architecture for Large Scale Privacy-Preserving Data Mining. *Merani, M.L.*, +, *TPDS June 2021 1340-1352*
- Data models**
- Accurate Differentially Private Deep Learning on the Edge. *Han, R.*, +, *TPDS Sept. 2021 2231-2247*
- ARENA: Asynchronous Reconfigurable Accelerator Ring to Enable Data-Centric Parallel Computing. *Tan, C.*, +, *TPDS Dec. 2021 2880-2892*
- Critique of “Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility” by SCC Team From ETH Zurich. *Burger, M.*, +, *TPDS Nov. 2021 2627-2630*
- Data Life Aware Model Updating Strategy for Stream-Based Online Deep Learning. *Rang, W.*, +, *TPDS Oct. 2021 2571-2581*
- Online Scheduling Technique To Handle Data Velocity Changes in Stream Workflows. *Barika, M.*, +, *TPDS Aug. 2021 2115-2130*
- RENDa: Resource and Network Aware Data Placement Algorithm for Periodic Workloads in Cloud. *Thakkar, H.K.*, +, *TPDS Dec. 2021 2906-2920*
- Data privacy**
- Accelerating Federated Learning Over Reliability-Agnostic Clients in Mobile Edge Computing Systems. *Wu, W.*, +, *TPDS July 2021 1539-1551*
- An Efficiency-Boosting Client Selection Scheme for Federated Learning With Fairness Guarantee. *Huang, T.*, +, *TPDS July 2021 1552-1564*
- Biscotti: A Blockchain System for Private and Secure Federated Learning. *Shayan, M.*, +, *TPDS July 2021 1513-1525*
- BOSSA: A Decentralized System for Proofs of Data Retrievability and Replication. *Chen, D.*, +, *TPDS April 2021 786-798*
- FedSCR: Structure-Based Communication Reduction for Federated Learning. *Wu, X.*, +, *TPDS July 2021 1565-1577*
- Mutual Information Driven Federated Learning. *Uddin, M.P.*, +, *TPDS July 2021 1526-1538*
- Privacy-Preserving Computation Offloading for Parallel Deep Neural Networks Training. *Mao, Y.*, +, *TPDS July 2021 1777-1788*
- Privacy-Preserving Multi-Keyword Searchable Encryption for Distributed Systems. *Liu, X.*, +, *TPDS March 2021 561-574*
- Privacy-Preserving Similarity Search With Efficient Updates in Distributed Key-Value Stores. *Lin, W.*, +, *TPDS May 2021 1072-1084*
- Proof of Federated Learning: A Novel Energy-Recycling Consensus Algorithm. *Qu, X.*, +, *TPDS Aug. 2021 2074-2085*
- Rings for Privacy: An Architecture for Large Scale Privacy-Preserving Data Mining. *Merani, M.L.*, +, *TPDS June 2021 1340-1352*
- Towards Efficient Scheduling of Federated Mobile Devices Under Computational and Statistical Heterogeneity. *Wang, C.*, +, *TPDS Feb. 2021 394-410*
- Data reduction**
- Improving the Performance of Deduplication-Based Storage Cache via Content-Driven Cache Management Methods. *Tan, Y.*, +, *TPDS Jan. 2021 214-228*
- Large-Scale Analysis of Docker Images and Performance Implications for Container Storage Systems. *Zhao, N.*, +, *TPDS April 2021 918-930*
- Data structures**
- A High-Throughput FPGA Accelerator for Short-Read Mapping of the Whole Human Genome. *Chen, Y.*, +, *TPDS June 2021 1465-1478*
- Canary: Decentralized Distributed Deep Learning Via Gradient Sketch and Partition in Multi-Interface Networks. *Zhou, Q.*, +, *TPDS April 2021 900-917*
- CASpMV: A Customized and Accelerative SpMV Framework for the Sunway TaihuLight. *Xiao, G.*, +, *TPDS Jan. 2021 131-146*
- Efficient Buffer Overflow Detection on GPU. *Di, B.*, +, *TPDS May 2021 1161-1177*
- MCFsyn: A Multi-Party Set Reconciliation Protocol With the Marked Cuckoo Filter. *Luo, L.*, +, *TPDS Nov. 2021 2705-2718*
- MO-Tree: An Efficient Forwarding Engine for Spatiotemporal-Aware Pub/Sub Systems. *Ding, T.*, +, *TPDS April 2021 855-866*
- PaKman: A Scalable Algorithm for Generating Genomic Contigs on Distributed Memory Machines. *Ghosh, P.*, +, *TPDS May 2021 1191-1209*
- Data transfer**
- RENDa: Resource and Network Aware Data Placement Algorithm for Periodic Workloads in Cloud. *Thakkar, H.K.*, +, *TPDS Dec. 2021 2906-2920*
- Data visualization**
- Critique of “Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility” by SCC Team From ETH Zurich. *Burger, M.*, +, *TPDS Nov. 2021 2627-2630*
- Decision making**
- A Two-Phase Dynamic Throughput Optimization Model for Big Data Transfers. *Nine, M.S.Q.Z.*, +, *TPDS Feb. 2021 269-280*
- Distributed Task Migration Optimization in MEC by Extending Multi-Agent Deep Reinforcement Learning Approach. *Liu, C.*, +, *TPDS July 2021 1603-1614*
- LightChain: Scalable DHT-Based Blockchain. *Hassanzadeh-Nazarabadi, Y.*, +, *TPDS Oct. 2021 2582-2593*
- Decision theory**
- Distributed Task Migration Optimization in MEC by Extending Multi-Agent Deep Reinforcement Learning Approach. *Liu, C.*, +, *TPDS July 2021 1603-1614*
- Deep learning**
- An Incremental Iterative Acceleration Architecture in Distributed Heterogeneous Environments With GPUs for Deep Learning. *Zhang, X.*, +, *TPDS Nov. 2021 2823-2837*
- Data Life Aware Model Updating Strategy for Stream-Based Online Deep Learning. *Rang, W.*, +, *TPDS Oct. 2021 2571-2581*
- Efficient Data Loader for Fast Sampling-Based GNN Training on Large Graphs. *Bai, Y.*, +, *TPDS Oct. 2021 2541-2556*
- Guest Editorial. *Balaji, P.*, +, *TPDS July 2021 1511-1512*
- Deep learning (artificial intelligence)**
- Accelerating Binarized Neural Networks via Bit-Tensor-Cores in Turing GPUs. *Li, A.*, +, *TPDS July 2021 1878-1891*
- Accelerating End-to-End Deep Learning Workflow With Codesign of Data Preprocessing and Scheduling. *Cheng, Y.*, +, *TPDS July 2021 1802-1814*
- Breaking (Global) Barriers in Parallel Stochastic Optimization With Wait-Avoiding Group Averaging. *Li, S.*, +, *TPDS July 2021 1725-1739*
- DL2: A Deep Learning-Driven Scheduler for Deep Learning Clusters. *Peng, Y.*, +, *TPDS Aug. 2021 1947-1960*
- Efficient Methods for Mapping Neural Machine Translator on FPGAs. *Li, Q.*, +, *TPDS July 2021 1866-1877*
- MG-WFBP: Merging Gradients Wisely for Efficient Communication in Distributed Deep Learning. *Shi, S.*, +, *TPDS Aug. 2021 1903-1917*
- Degradation**
- Virtualization Overhead of Multithreading in X86 State-of-the-Art & Remaining Challenges. *Schildermans, S.*, +, *TPDS Oct. 2021 2557-2570*
- Delays**
- FRATO: Fog Resource Based Adaptive Task Offloading for Delay-Minimizing IoT Service Provisioning. *Tran-Dang, H.*, +, *TPDS Oct. 2021 2491-2508*
- Differential privacy**
- Accurate Differentially Private Deep Learning on the Edge. *Han, R.*, +, *TPDS Sept. 2021 2231-2247*
- Diffusion processes**
- gIM: GPU Accelerated RIS-Based Influence Maximization Algorithm. *Shahrouz, S.*, +, *TPDS Oct. 2021 2386-2399*
- Digital signal processing chips**
- Energy-Efficient Hardware-Accelerated Synchronization for Shared-L1-Memory Multiprocessor Clusters. *Glaser, F.*, +, *TPDS March 2021 633-648*
- Directed graphs**
- An Optimized Weighted Average Makespan in Fault-Tolerant Heterogeneous MPSoCs. *Youness, H.*, +, *TPDS Aug. 2021 1933-1946*
- Boosting Parallel Influence-Maximization Kernels for Undirected Networks With Fusing and Vectorization. *Gokturk, G.*, +, *TPDS May 2021 1001-1013*

Fast Adaptive Task Offloading in Edge Computing Based on Meta Reinforcement Learning. *Wang, J.*, +, *TPDS Jan. 2021 242-253*

Diseases

Retargeting Tensor Accelerators for Epistasis Detection. *Nobre, R.*, +, *TPDS Sept. 2021 2160-2174*

Distributed algorithms

Accelerating Large-Scale Prioritized Graph Computations by Hotness Balanced Partition. *Gong, S.*, +, *TPDS April 2021 746-759*

Distributed computing

Guest Editorial. *Balaji, P.*, +, *TPDS July 2021 1511-1512*

Towards Efficient Distributed Subgraph Enumeration Via Backtracking-Based Framework. *Wang, Z.*, +, *TPDS Dec. 2021 2953-2969*

Distributed control

Distributed Adaptive Consensus Tracking Control for Multi-Agent System With Communication Constraints. *Zhang, P.*, +, *TPDS June 2021 1293-1306*

Distributed databases

Achieving Probabilistic Atomicity With Well-Bounded Staleness and Low Read Latency in Distributed Datastores. *Ouyang, L.*, +, *TPDS April 2021 815-829*

Blockchain at the Edge: Performance of Resource-Constrained IoT Networks. *Misra, S.*, +, *TPDS Jan. 2021 174-183*

BOSSA: A Decentralized System for Proofs of Data Retrievability and Replication. *Chen, D.*, +, *TPDS April 2021 786-798*

Cryptomining Detection in Container Clouds Using System Calls and Explainable Machine Learning. *Karn, R.R.*, +, *TPDS March 2021 674-691*

Data Life Aware Model Updating Strategy for Stream-Based Online Deep Learning. *Rang, W.*, +, *TPDS Oct. 2021 2571-2581*

Improved MPC Algorithms for Edit Distance and Ulam Distance. *Boroujeni, M.*, +, *TPDS Nov. 2021 2764-2776*

RENDa: Resource and Network Aware Data Placement Algorithm for Periodic Workloads in Cloud. *Thakkar, H.K.*, +, *TPDS Dec. 2021 2906-2920*

Towards Efficient Distributed Subgraph Enumeration Via Backtracking-Based Framework. *Wang, Z.*, +, *TPDS Dec. 2021 2953-2969*

Distributed memory systems

A Machine-Learning-Based Framework for Productive Locality Exploitation. *Kayraklioglu, E.*, +, *TPDS June 2021 1409-1424*

PaKman: A Scalable Algorithm for Generating Genomic Contigs on Distributed Memory Machines. *Ghosh, P.*, +, *TPDS May 2021 1191-1209*

Partitioning Models for General Medium-Grain Parallel Sparse Tensor Decomposition. *Karsavuran, M.O.*, +, *TPDS Jan. 2021 147-159*

True Load Balancing for Matricized Tensor Times Khatri-Rao Product. *Abubaker, N.*, +, *TPDS Aug. 2021 1974-1986*

Distributed processing

Hone: Mitigating Stragglers in Distributed Stream Processing With Tuple Scheduling. *Li, W.*, +, *TPDS Aug. 2021 2021-2034*

A Fault-Tolerant Distributed Framework for Asynchronous Iterative Computations. *Zhou, T.*, +, *TPDS Aug. 2021 2062-2073*

Accelerating Large-Scale Prioritized Graph Computations by Hotness Balanced Partition. *Gong, S.*, +, *TPDS April 2021 746-759*

Fast Adaptive Task Offloading in Edge Computing Based on Meta Reinforcement Learning. *Wang, J.*, +, *TPDS Jan. 2021 242-253*

Joint Task Scheduling and Containerizing for Efficient Edge Computing. *Zhang, J.*, +, *TPDS Aug. 2021 2086-2100*

Learning-Driven Interference-Aware Workload Parallelization for Streaming Applications in Heterogeneous Cluster. *Zhang, H.*, +, *TPDS Jan. 2021 1-15*

Online Collaborative Data Caching in Edge Computing. *Xia, X.*, +, *TPDS Feb. 2021 281-294*

Distributed programming

CPDE: A Methodology for the Transparent Distribution of Centralized Smart Grid Programs. *Nguyen, T.T.Q.*, +, *TPDS Feb. 2021 342-354*

Divide and conquer methods

A Parallel Structured Divide-and-Conquer Algorithm for Symmetric Tridiagonal Eigenvalue Problems. *Liao, X.*, +, *TPDS Feb. 2021 367-378*

DNA

A High-Throughput FPGA Accelerator for Short-Read Mapping of the Whole Human Genome. *Chen, Y.*, +, *TPDS June 2021 1465-1478*

PaKman: A Scalable Algorithm for Generating Genomic Contigs on Distributed Memory Machines. *Ghosh, P.*, +, *TPDS May 2021 1191-1209*

DRAM chips

K-Athena: A Performance Portable Structured Grid Finite Volume Magneto-hydrodynamics Code. *Grete, P.*, +, *TPDS Jan. 2021 85-97*

Hardware Accelerator Integration Tradeoffs for High-Performance Computing: A Case Study of GEMM Acceleration in N-Body Methods. *Asri, M.*, +, *TPDS Aug. 2021 2035-2048*

Lewat: A Lightweight, Efficient, and Wear-Aware Transactional Persistent Memory System. *Huang, K.*, +, *TPDS March 2021 649-664*

Dynamic programming

Canary: Decentralized Distributed Deep Learning Via Gradient Sketch and Partition in Multi-Interface Networks. *Zhou, Q.*, +, *TPDS April 2021 900-917*

Parallel Fine-Grained Comparison of Long DNA Sequences in Homogeneous and Heterogeneous GPU Platforms With Pruning. *Figueiredo, M.*, +, *TPDS Dec. 2021 3053-3065*

Dynamic scheduling

An Elastic Task Scheduling Scheme on Coarse-Grained Reconfigurable Architectures. *Chen, L.*, +, *TPDS Dec. 2021 3066-3080*

IPPTS: An Efficient Algorithm for Scientific Workflow Scheduling in Heterogeneous Computing Systems. *Djigal, H.*, +, *TPDS May 2021 1057-1071*

Modeling and Analyzing Waiting Policies for Cloud-Enabled Schedulers. *Ambati, P.*, +, *TPDS Dec. 2021 3081-3100*

Online Scheduling Technique To Handle Data Velocity Changes in Stream Workflows. *Barika, M.*, +, *TPDS Aug. 2021 2115-2130*

E

Earth

Critique of "Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility" by SCC Team From Tsinghua University. *Zhang, C.*, +, *TPDS Nov. 2021 2631-2634*

Economics

Scalable Energy Games Solvers on GPUs. *Formisano, A.*, +, *TPDS Dec. 2021 2970-2982*

Edge computing

A Survey of System Architectures and Techniques for FPGA Virtualization. *Quraishi, M.H.*, +, *TPDS Sept. 2021 2216-2230*

Offloading Tasks With Dependency and Service Caching in Mobile Edge Computing. *Zhao, G.*, +, *TPDS Nov. 2021 2777-2792*

Eigenvalues and eigenfunctions

A Parallel Structured Divide-and-Conquer Algorithm for Symmetric Tridiagonal Eigenvalue Problems. *Liao, X.*, +, *TPDS Feb. 2021 367-378*

Critique of "Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility" by SCC Team From National Tsing Hua University. *Sun, W.*, +, *TPDS Nov. 2021 2623-2626*

Critique of "Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility" by SCC Team From Tsinghua University. *Zhang, C.*, +, *TPDS Nov. 2021 2631-2634*

Critique of "Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility" by SCC Team From University of Washington. *Liu, D.*, +, *TPDS Nov. 2021 2639-2642*

Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility. *Shi, J.*, +, *TPDS Nov. 2021 2609-2622*

Electroluminescence

A Hybrid Fuzzy Convolutional Neural Network Based Mechanism for Photovoltaic Cell Defect Detection With Electroluminescence Images. *Ge, C.*, +, *TPDS July 2021 1653-1664*

Electronic engineering computing

Learning-Driven Interference-Aware Workload Parallelization for Streaming Applications in Heterogeneous Cluster. *Zhang, H.*, +, *TPDS Jan. 2021 1-15*

Embedded systems

A Thread Level SLO-Aware I/O Framework for Embedded Virtualization. *Gong, X.*, +, *TPDS March 2021 500-513*

EDGES: An Efficient Distributed Graph Embedding System on GPU Clusters. *Yang, D., +, TPDS July 2021 1892-1902*

Energy conservation

e-PoS: Making Proof-of-Stake Decentralized and Fair. Saad, M., +, TPDS Aug. 2021 1961-1973

Design and Implementation of a Criticality- and Heterogeneity-Aware Runtime System for Task-Parallel Applications. *Han, M., +, TPDS May 2021 1117-1132*

Hardware Accelerator Integration Tradeoffs for High-Performance Computing: A Case Study of GEMM Acceleration in N-Body Methods. *Asri, M., +, TPDS Aug. 2021 2035-2048*

Towards Greening MapReduce Clusters Considering Both Computation Energy and Cooling Energy. *Toha, T.R., +, TPDS April 2021 931-942*

Energy consumption

Bi-Objective Optimization of Data-Parallel Applications on Heterogeneous HPC Platforms for Performance and Energy Through Workload Distribution. *Khaleghzadeh, H., +, TPDS March 2021 543-560*

Fine-Grained Powercap Allocation for Power-Constrained Systems Based on Multi-Objective Machine Learning. *Hao, M., +, TPDS July 2021 1789-1801*

Thermal Prediction for Efficient Energy Management of Clouds Using Machine Learning. *Ilager, S., +, TPDS May 2021 1044-1056*

Towards Greening MapReduce Clusters Considering Both Computation Energy and Cooling Energy. *Toha, T.R., +, TPDS April 2021 931-942*

Energy efficiency

Architectural Adaptation and Performance-Energy Optimization for CFD Application on AMD EPYC Rome. *Szustak, L., +, TPDS Dec. 2021 2852-2866*

Energy management systems

Thermal Prediction for Efficient Energy Management of Clouds Using Machine Learning. *Ilager, S., +, TPDS May 2021 1044-1056*

Energy states

Scalable Energy Games Solvers on GPUs. *Formisano, A., +, TPDS Dec. 2021 2970-2982*

Engines

Fine-Grained Multi-Query Stream Processing on Integrated Architectures. *Zhang, F., +, TPDS Sept. 2021 2303-2320*

Spartan: A Sparsity-Adaptive Framework to Accelerate Deep Neural Network Training on GPUs. *Dong, S., +, TPDS Oct. 2021 2448-2463*

Error correction codes

FT-CNN: Algorithm-Based Fault Tolerance for Convolutional Neural Networks. *Zhao, K., +, TPDS July 2021 1677-1689*

Error detection

FT-CNN: Algorithm-Based Fault Tolerance for Convolutional Neural Networks. *Zhao, K., +, TPDS July 2021 1677-1689*

Evolution (biology)

Parallel Fine-Grained Comparison of Long DNA Sequences in Homogeneous and Heterogeneous GPU Platforms With Pruning. *Figueiredo, M., +, TPDS Dec. 2021 3053-3065*

F

Face recognition

Offloading Tasks With Dependency and Service Caching in Mobile Edge Computing. *Zhao, G., +, TPDS Nov. 2021 2777-2792*

Failure analysis

Realizing Best Checkpointing Control in Computing Systems. *Sigdel, P., +, TPDS Feb. 2021 315-329*

Fast Fourier transforms

Bi-Objective Optimization of Data-Parallel Applications on Heterogeneous HPC Platforms for Performance and Energy Through Workload Distribution. *Khaleghzadeh, H., +, TPDS March 2021 543-560*

Fault tolerance

A Scalable Multi-Layer PBFT Consensus for Blockchain. *Li, W., +, TPDS May 2021 1146-1160*

Structured Allocation-Based Consistent Hashing With Improved Balancing for Cloud Infrastructure. *Nakatani, Y., TPDS Sept. 2021 2248-2261*

Fault tolerant computing

A Fault-Tolerant Distributed Framework for Asynchronous Iterative Computations. *Zhou, T., +, TPDS Aug. 2021 2062-2073*

An Optimized Weighted Average Makespan in Fault-Tolerant Heterogeneous MPSoCs. *Youness, H., +, TPDS Aug. 2021 1933-1946*

Constructing Completely Independent Spanning Trees in Data Center Network Based on Augmented Cube. *Chen, G., +, TPDS March 2021 665-673*

Learning Spatiotemporal Failure Dependencies for Resilient Edge Computing Services. *Aral, A., +, TPDS July 2021 1578-1590*

Middleware to Manage Fault Tolerance Using Semi-Coordinated Checkpoints. *Wong, A., +, TPDS Feb. 2021 254-268*

Realizing Best Checkpointing Control in Computing Systems. *Sigdel, P., +, TPDS Feb. 2021 315-329*

Fault tolerant systems

Structured Allocation-Based Consistent Hashing With Improved Balancing for Cloud Infrastructure. *Nakatani, Y., TPDS Sept. 2021 2248-2261*

Feature extraction

DeepSlicing: Collaborative and Adaptive CNN Inference With Low Latency. *Zhang, S., +, TPDS Sept. 2021 2175-2187*

Offloading Tasks With Dependency and Service Caching in Mobile Edge Computing. *Zhao, G., +, TPDS Nov. 2021 2777-2792*

Feature selection

Systematically Landing Machine Learning onto Market-Scale Mobile Malware Detection. *Gong, L., +, TPDS July 2021 1615-1628*

Feedback

Distributed Adaptive Consensus Tracking Control for Multi-Agent System With Communication Constraints. *Zhang, P., +, TPDS June 2021 1293-1306*

Field programmable gate arrays

A High-Throughput FPGA Accelerator for Short-Read Mapping of the Whole Human Genome. *Chen, Y., +, TPDS June 2021 1465-1478*

A Resource and Performance Optimization Reduction Circuit on FPGAs. *Tang, L., +, TPDS Feb. 2021 355-366*

A Survey of System Architectures and Techniques for FPGA Virtualization. *Quraishi, M.H., +, TPDS Sept. 2021 2216-2230*

Accelerating End-to-End Deep Learning Workflow With Codesign of Data Preprocessing and Scheduling. *Cheng, Y., +, TPDS July 2021 1802-1814*

Coarse-Grained Parallel Routing With Recursive Partitioning for FPGAs. *Shen, M., +, TPDS April 2021 884-899*

Efficient Methods for Mapping Neural Machine Translator on FPGAs. *Li, Q., +, TPDS July 2021 1866-1877*

Improving HW/SW Adaptability for Accelerating CNNs on FPGAs Through A Dynamic/Static Co-Reconfiguration Approach. *Gong, L., +, TPDS July 2021 1854-1865*

O3BNN-R: An Out-of-Order Architecture for High-Performance and Regularized BNN Inference. *Geng, T., +, TPDS Jan. 2021 199-213*

File organization

Privacy-Preserving Similarity Search With Efficient Updates in Distributed Key-Value Stores. *Lin, W., +, TPDS May 2021 1072-1084*

Filtering

Critique of "Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility" by SCC Team From ETH Zurich. *Burger, M., +, TPDS Nov. 2021 2627-2630*

FIR filters

A Resource and Performance Optimization Reduction Circuit on FPGAs. *Tang, L., +, TPDS Feb. 2021 355-366*

Flash memories

Co-Active: A Workload-Aware Collaborative Cache Management Scheme for NVMe SSDs. *Sun, H., +, TPDS June 2021 1437-1451*

Floating point arithmetic

Efficient Methods for Mapping Neural Machine Translator on FPGAs. *Li, Q., +, TPDS July 2021 1866-1877*

Formal specification

Reversible CSP Computations. *Galindo, C., +, TPDS June 2021 1425-1436*

Formal verification

Scalable Energy Games Solvers on GPUs. *Formisano, A., +, TPDS Dec. 2021 2970-2982*

Fuzzy logic

A Hybrid Fuzzy Convolutional Neural Network Based Mechanism for Photovoltaic Cell Defect Detection With Electroluminescence Images. *Ge, C.*, +, *TPDS July 2021 1653-1664*

Fuzzy neural networks

A Hybrid Fuzzy Convolutional Neural Network Based Mechanism for Photovoltaic Cell Defect Detection With Electroluminescence Images. *Ge, C.*, +, *TPDS July 2021 1653-1664*

Fuzzy set theory

A Hybrid Fuzzy Convolutional Neural Network Based Mechanism for Photovoltaic Cell Defect Detection With Electroluminescence Images. *Ge, C.*, +, *TPDS July 2021 1653-1664*

G**Game theory**

A Game-Based Approach for Cost-Aware Task Assignment With QoS Constraint in Collaborative Edge and Cloud Environments. *Long, S.*, +, *TPDS July 2021 1629-1640*

Investigating the Adoption of Hybrid Encrypted Cloud Data Deduplication With Game Theory. *Liang, X.*, +, *TPDS March 2021 587-600*

Scalable Energy Games Solvers on GPUs. *Formisano, A.*, +, *TPDS Dec. 2021 2970-2982*

Gaussian processes

A Probabilistic Machine Learning Approach to Scheduling Parallel Loops With Bayesian Optimization. *Kim, K.*, +, *TPDS July 2021 1815-1827*

Generative adversarial networks

GML: Efficiently Auto-Tuning Flank's Configurations Via Guided Machine Learning. *Guo, Y.*, +, *TPDS Dec. 2021 2921-2935*

Genetic algorithms

A Distributed Framework for EA-Based NAS. *Ye, Q.*, +, *TPDS July 2021 1753-1764*

Hierarchical Multi-Agent Optimization for Resource Allocation in Cloud Computing. *Gao, X.*, +, *TPDS March 2021 692-707*

Parallelization and Optimization of NSGA-II on Sunway TaihuLight System. *Liu, X.*, +, *TPDS April 2021 975-987*

Genetics

A High-Throughput FPGA Accelerator for Short-Read Mapping of the Whole Human Genome. *Chen, Y.*, +, *TPDS June 2021 1465-1478*

Genomics

A High-Throughput FPGA Accelerator for Short-Read Mapping of the Whole Human Genome. *Chen, Y.*, +, *TPDS June 2021 1465-1478*

PaKman: A Scalable Algorithm for Generating Genomic Contigs on Distributed Memory Machines. *Ghosh, P.*, +, *TPDS May 2021 1191-1209*

Geology

ReliableBox: Secure and Verifiable Cloud Storage With Location-Aware Backup. *Jiang, T.*, +, *TPDS Dec. 2021 2996-3010*

Geometry

Analysis of GPU Data Access Patterns on Complex Geometries for the D3Q19 Lattice Boltzmann Algorithm. *Herschlag, G.*, +, *TPDS Oct. 2021 2400-2414*

Geospatial analysis

High Performance Multivariate Geospatial Statistics on Manycore Systems. *Salvana, M.L.O.*, +, *TPDS Nov. 2021 2719-2733*

Globalization

Self-Stabilizing Population Protocols With Global Knowledge. *Sudo, Y.*, +, *TPDS Dec. 2021 3011-3023*

Gradient methods

Breaking (Global) Barriers in Parallel Stochastic Optimization With Wait-Avoiding Group Averaging. *Li, S.*, +, *TPDS July 2021 1725-1739*

Canary: Decentralized Distributed Deep Learning Via Gradient Sketch and Partition in Multi-Interface Networks. *Zhou, Q.*, +, *TPDS April 2021 900-917*

MG-WFBP: Merging Gradients Wisely for Efficient Communication in Distributed Deep Learning. *Shi, S.*, +, *TPDS Aug. 2021 1903-1917*

Thermal Prediction for Efficient Energy Management of Clouds Using Machine Learning. *Ilager, S.*, +, *TPDS May 2021 1044-1056*

Why Dataset Properties Bound the Scalability of Parallel Machine Learning Training Algorithms. *Cheng, D.*, +, *TPDS July 2021 1702-1712*

Graph coloring

Feluca: A Two-Stage Graph Coloring Algorithm With Color-Centric Paradigm on GPU. *Zheng, Z.*, +, *TPDS Jan. 2021 160-173*

Graph theory

Accelerating Large-Scale Prioritized Graph Computations by Hotness Balanced Partition. *Gong, S.*, +, *TPDS April 2021 746-759*

EDGES: An Efficient Distributed Graph Embedding System on GPU Clusters. *Yang, D.*, +, *TPDS July 2021 1892-1902*

FedSCR: Structure-Based Communication Reduction for Federated Learning. *Wu, X.*, +, *TPDS July 2021 1565-1577*

Feluca: A Two-Stage Graph Coloring Algorithm With Color-Centric Paradigm on GPU. *Zheng, Z.*, +, *TPDS Jan. 2021 160-173*

PaKman: A Scalable Algorithm for Generating Genomic Contigs on Distributed Memory Machines. *Ghosh, P.*, +, *TPDS May 2021 1191-1209*

Partitioning Models for General Medium-Grain Parallel Sparse Tensor Decomposition. *Karsavuran, M.O.*, +, *TPDS Jan. 2021 147-159*

Towards Efficient Distributed Subgraph Enumeration Via Backtracking-Based Framework. *Wang, Z.*, +, *TPDS Dec. 2021 2953-2969*

True Load Balancing for Matricized Tensor Times Khatri-Rao Product. *Abubaker, N.*, +, *TPDS Aug. 2021 1974-1986*

Graphics processing units

3D Perception With Slanted Stixels on GPU. *Hernandez-Juarez, D.*, +, *TPDS Oct. 2021 2434-2447*

K-Athena: A Performance Portable Structured Grid Finite Volume Magneto-hydrodynamics Code. *Grete, P.*, +, *TPDS Jan. 2021 85-97*

Trust: Triangle Counting Reloaded on GPUs. *Pandey, S.*, +, *TPDS Nov. 2021 2646-2660*

A GPU Acceleration Framework for Motif and Discord Based Pattern Mining. *Zhu, B.*, +, *TPDS Aug. 2021 1987-2004*

A Split Execution Model for SpTRSV. *Ahmad, N.*, +, *TPDS Nov. 2021 2809-2822*

Accelerating Binarized Neural Networks via Bit-Tensor-Cores in Turing GPUs. *Li, A.*, +, *TPDS July 2021 1878-1891*

Accelerating the Bron-Kerbosch Algorithm for Maximal Clique Enumeration Using GPUs. *Yi-Wen, W.*, +, *TPDS Sept. 2021 2352-2366*

Adaptive SpMV/SpMSpV on GPUs for Input Vectors of Varied Sparsity. *Li, M.*, +, *TPDS July 2021 1842-1853*

An Efficient Parallel Secure Machine Learning Framework on GPUs. *Zhang, F.*, +, *TPDS Sept. 2021 2262-2276*

An Incremental Iterative Acceleration Architecture in Distributed Heterogeneous Environments With GPUs for Deep Learning. *Zhang, X.*, +, *TPDS Nov. 2021 2823-2837*

BALS: Blocked Alternating Least Squares for Parallel Sparse Matrix Factorization on GPUs. *Chen, J.*, +, *TPDS Sept. 2021 2291-2302*

E²bird: Enhanced Elastic Batch for Improving Responsiveness and Throughput of Deep Learning Services. *Cui, W.*, +, *TPDS June 2021 1307-1321*

EDGES: An Efficient Distributed Graph Embedding System on GPU Clusters. *Yang, D.*, +, *TPDS July 2021 1892-1902*

Efficient Buffer Overflow Detection on GPU. *Di, B.*, +, *TPDS May 2021 1161-1177*

Efficient Data Loader for Fast Sampling-Based GNN Training on Large Graphs. *Bai, Y.*, +, *TPDS Oct. 2021 2541-2556*

Feluca: A Two-Stage Graph Coloring Algorithm With Color-Centric Paradigm on GPU. *Zheng, Z.*, +, *TPDS Jan. 2021 160-173*

Fine-Grained Multi-Query Stream Processing on Integrated Architectures. *Zhang, F.*, +, *TPDS Sept. 2021 2303-2320*

gIM: GPU Accelerated RIS-Based Influence Maximization Algorithm. *Shahrouz, S.*, +, *TPDS Oct. 2021 2386-2399*

GPU Tensor Cores for Fast Arithmetic Reductions. *Navarro, C.A.*, +, *TPDS Jan. 2021 72-84*

High Performance Multivariate Geospatial Statistics on Manycore Systems. *Salvana, M.L.O.*, +, *TPDS Nov. 2021 2719-2733*

iMLBench: A Machine Learning Benchmark Suite for CPU-GPU Integrated Architectures. *Zhang, C.*, +, *TPDS July 2021 1740-1752*

Learning-Driven Interference-Aware Workload Parallelization for Streaming Applications in Heterogeneous Cluster. *Zhang, H.*, +, *TPDS Jan. 2021 1-15*

MG-WFBP: Merging Gradients Wisely for Efficient Communication in Distributed Deep Learning. *Shi, S.*, +, *TPDS Aug. 2021 1903-1917*

Multi-GPU Design and Performance Evaluation of Homomorphic Encryption on GPU Clusters. *Al Badawi, A.*, +, *TPDS Feb. 2021 379-391*

Multi-GPU Parallelization of the NAS Multi-Zone Parallel Benchmarks. *Gonzalez, M.*, +, *TPDS Jan. 2021 229-241*

Optimizing the LINPACK Algorithm for Large-Scale PCIe-Based CPU-GPU Heterogeneous Systems. *Tan, G.*, +, *TPDS Sept. 2021 2367-2380*

Parallel Fine-Grained Comparison of Long DNA Sequences in Homogeneous and Heterogeneous GPU Platforms With Pruning. *Figueiredo, M.*, +, *TPDS Dec. 2021 3053-3065*

PQC Acceleration Using GPUs: FrodoKEM, NewHope, and Kyber. *Gupta, N.*, +, *TPDS March 2021 575-586*

Spartan: A Sparsity-Adaptive Framework to Accelerate Deep Neural Network Training on GPUs. *Dong, S.*, +, *TPDS Oct. 2021 2448-2463*

The Case for Cross-Component Power Coordination on Power Bounded Systems. *Ge, R.*, +, *TPDS Oct. 2021 2464-2476*

YuenyeungSpTRSV: A Thread-Level and Warp-Level Fusion Synchronization-Free Sparse Triangular Solve. *Zhang, F.*, +, *TPDS Sept. 2021 2321-2337*

Greedy algorithms

Boosting Parallel Influence-Maximization Kernels for Undirected Networks With Fusing and Vectorization. *Gokturk, G.*, +, *TPDS May 2021 1001-1013*

gIM: GPU Accelerated RIS-Based Influence Maximization Algorithm. *Shahrouz, S.*, +, *TPDS Oct. 2021 2386-2399*

Modeling and Optimization of Performance and Cost of Serverless Applications. *Lin, C.*, +, *TPDS March 2021 615-632*

Towards Efficient Scheduling of Federated Mobile Devices Under Computational and Statistical Heterogeneity. *Wang, C.*, +, *TPDS Feb. 2021 394-410*

Green computing

Towards Greening MapReduce Clusters Considering Both Computation Energy and Cooling Energy. *Toha, T.R.*, +, *TPDS April 2021 931-942*

Grid computing

Optimised Lambda Architecture for Monitoring Scientific Infrastructure. *Suthakar, U.*, +, *TPDS June 2021 1395-1408*

H

Hardware

A Survey of System Architectures and Techniques for FPGA Virtualization. *Quraishi, M.H.*, +, *TPDS Sept. 2021 2216-2230*

Critique of “Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility” by SCC Team From ETH Zurich. *Burger, M.*, +, *TPDS Nov. 2021 2627-2630*

Critique of “Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility” by SCC Team From Peking University. *Cheng, Y.*, +, *TPDS Nov. 2021 2643-2645*

Critique of “Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility” by SCC Team From University of Warsaw. *Masiak, M.*, +, *TPDS Nov. 2021 2635-2638*

Efficient Forwarding Anomaly Detection in Software-Defined Networks. *Li, Q.*, +, *TPDS Nov. 2021 2676-2690*

Retargeting Tensor Accelerators for Epistasis Detection. *Nobre, R.*, +, *TPDS Sept. 2021 2160-2174*

The Case for Cross-Component Power Coordination on Power Bounded Systems. *Ge, R.*, +, *TPDS Oct. 2021 2464-2476*

Virtualization Overhead of Multithreading in X86 State-of-the-Art & Remaining Challenges. *Schildermans, S.*, +, *TPDS Oct. 2021 2557-2570*

Hardware accelerators

Accelerating Binarized Neural Networks via Bit-Tensor-Cores in Turing GPUs. *Li, A.*, +, *TPDS July 2021 1878-1891*

Hardware-software codesign

Improving HW/SW Adaptability for Accelerating CNNs on FPGAs Through A Dynamic/Static Co-Reconfiguration Approach. *Gong, L.*, +, *TPDS July 2021 1854-1865*

Subutai: Speeding Up Legacy Parallel Applications Through Data Synchronization. *Cataldo, R.*, +, *TPDS May 2021 1102-1116*

Hash functions

MCFsyn: A Multi-Party Set Reconciliation Protocol With the Marked Cuckoo Filter. *Luo, L.*, +, *TPDS Nov. 2021 2705-2718*

Structured Allocation-Based Consistent Hashing With Improved Balancing for Cloud Infrastructure. *Nakatani, Y.*, *TPDS Sept. 2021 2248-2261*

Heterogeneous networks

IPPTS: An Efficient Algorithm for Scientific Workflow Scheduling in Heterogeneous Computing Systems. *Djigal, H.*, +, *TPDS May 2021 1057-1071*

Heuristic algorithms

Efficient Virtual Network Embedding of Cloud-Based Data Center Networks into Optical Networks. *Fan, W.*, +, *TPDS Nov. 2021 2793-2808*

Group Reassignment for Dynamic Edge Partitioning. *Li, H.*, +, *TPDS Oct. 2021 2477-2490*

IPPTS: An Efficient Algorithm for Scientific Workflow Scheduling in Heterogeneous Computing Systems. *Djigal, H.*, +, *TPDS May 2021 1057-1071*

Parallel Fine-Grained Comparison of Long DNA Sequences in Homogeneous and Heterogeneous GPU Platforms With Pruning. *Figueiredo, M.*, +, *TPDS Dec. 2021 3053-3065*

Hidden Markov models

A Quantum Approach Towards the Adaptive Prediction of Cloud Workloads. *Singh, A.K.*, +, *TPDS Dec. 2021 2893-2905*

High energy physics instrumentation computing

Optimised Lambda Architecture for Monitoring Scientific Infrastructure. *Suthakar, U.*, +, *TPDS June 2021 1395-1408*

High level synthesis

Efficient Methods for Mapping Neural Machine Translator on FPGAs. *Li, Q.*, +, *TPDS July 2021 1866-1877*

Transformations of High-Level Synthesis Codes for High-Performance Computing. *de Fine Licht, J.*, +, *TPDS May 2021 1014-1029*

Hypercube networks

Constructing Completely Independent Spanning Trees in Data Center Network Based on Augmented Cube. *Chen, G.*, +, *TPDS March 2021 665-673*

I

IEEE publishing

2020 Reviewers List*. *TPDS May 2021 1270-1276*

Image coding

SGDS\\$_Tucker: A Novel Stochastic Optimization Strategy for Parallel Sparse Tucker Decomposition. *Li, H.*, +, *TPDS July 2021 1828-1841*

Image fusion

A Scalable Platform for Distributed Object Tracking Across a Many-Camera Network. *Khochare, A.*, +, *TPDS June 2021 1479-1493*

Image processing

Accelerating End-to-End Deep Learning Workflow With Codesign of Data Preprocessing and Scheduling. *Cheng, Y.*, +, *TPDS July 2021 1802-1814*

Large-Scale Analysis of Docker Images and Performance Implications for Container Storage Systems. *Zhao, N.*, +, *TPDS April 2021 918-930*

Image segmentation

3D Perception With Slanted Stixels on GPU. *Hernandez-Juarez, D.*, +, *TPDS Oct. 2021 2434-2447*

Indexes

3D Perception With Slanted Stixels on GPU. *Hernandez-Juarez, D.*, +, *TPDS Oct. 2021 2434-2447*

Octans: Optimal Placement of Service Function Chains in Many-Core Systems. *Yu, H.*, +, *TPDS Sept. 2021 2202-2215*

Inference algorithms

Data Life Aware Model Updating Strategy for Stream-Based Online Deep Learning. *Rang, W.*, +, *TPDS Oct. 2021 2571-2581*

Inference mechanisms

E²bird: Enhanced Elastic Batch for Improving Responsiveness and Throughput of Deep Learning Services. *Cui, W.*, +, *TPDS June 2021 1307-1321*

Energy-Aware Inference Offloading for DNN-Driven Applications in Mobile Edge Clouds. *Xu, Z.*, +, *TPDS April 2021 799-814*

Model Parallelism Optimization for Distributed Inference Via Decoupled CNN Structure. *Du, J.*, +, *TPDS July 2021 1665-1676*

Information retrieval

An Automatic Synthesizer of Advising Tools for High Performance Computing. *Guan, H.*, +, *TPDS Feb. 2021 330-341*

Auditing Cache Data Integrity in the Edge Computing Environment. *Li, B.*, +, *TPDS May 2021 1210-1223*

Instruction sets

Trust: Triangle Counting Reloaded on GPUs. *Pandey, S.*, +, *TPDS Nov. 2021 2646-2660*

Tardiness Bounds for Sporadic Gang Tasks Under Preemptive Global EDF Scheduling. *Dong, Z.*, +, *TPDS Dec. 2021 2867-2879*

YuenyeungSpTRSV: A Thread-Level and Warp-Level Fusion Synchronization-Free Sparse Triangular Solve. *Zhang, F.*, +, *TPDS Sept. 2021 2321-2337*

Integer programming

Cost-Effective App Data Distribution in Edge Computing. *Xia, X.*, +, *TPDS Jan. 2021 31-44*

On the Effective Parallelization and Near-Optimal Deployment of Service Function Chains. *Luo, J.*, +, *TPDS May 2021 1238-1255*

Integrated circuit design

Coarse-Grained Parallel Routing With Recursive Partitioning for FPGAs. *Shen, M.*, +, *TPDS April 2021 884-899*

Hardware Accelerator Integration Tradeoffs for High-Performance Computing: A Case Study of GEMM Acceleration in N-Body Methods. *Asri, M.*, +, *TPDS Aug. 2021 2035-2048*

Integrated circuit modeling

gIM: GPU Accelerated RIS-Based Influence Maximization Algorithm. *Shahrouz, S.*, +, *TPDS Oct. 2021 2386-2399*

Intelligent manufacturing systems

A Hybrid Fuzzy Convolutional Neural Network Based Mechanism for Photovoltaic Cell Defect Detection With Electroluminescence Images. *Ge, C.*, +, *TPDS July 2021 1653-1664*

Interference

Adaptive Preference-Aware Co-Location for Improving Resource Utilization of Power Constrained Datacenters. *Pang, P.*, +, *TPDS Feb. 2021 441-456*

Internet

A Two-Phase Dynamic Throughput Optimization Model for Big Data Transfers. *Nine, M.S.Q.Z.*, +, *TPDS Feb. 2021 269-280*

Accelerating Gossip-Based Deep Learning in Heterogeneous Edge Computing Platforms. *Han, R.*, +, *TPDS July 2021 1591-1602*

Learning Spatiotemporal Failure Dependencies for Resilient Edge Computing Services. *Aral, A.*, +, *TPDS July 2021 1578-1590*

Internet of Things

A Generic Stochastic Model for Resource Availability in Fog Computing Environments. *Battula, S.K.*, +, *TPDS April 2021 960-974*

Blockchain at the Edge: Performance of Resource-Constrained IoT Networks. *Misra, S.*, +, *TPDS Jan. 2021 174-183*

Burst Load Evacuation Based on Dispatching and Scheduling In Distributed Edge Networks. *Deng, S.*, +, *TPDS Aug. 2021 1918-1932*

FRATO: Fog Resource Based Adaptive Task Offloading for Delay-Minimizing IoT Service Provisioning. *Tran-Dang, H.*, +, *TPDS Oct. 2021 2491-2508*

Model Parallelism Optimization for Distributed Inference Via Decoupled CNN Structure. *Du, J.*, +, *TPDS July 2021 1665-1676*

Multi-Hop Multi-Task Partial Computation Offloading in Collaborative Edge Computing. *Sahni, Y.*, +, *TPDS May 2021 1133-1145*

Invasive software

Cryptomining Detection in Container Clouds Using System Calls and Explainable Machine Learning. *Karn, R.R.*, +, *TPDS March 2021 674-691*

Systematically Landing Machine Learning onto Market-Scale Mobile Malware Detection. *Gong, L.*, +, *TPDS July 2021 1615-1628*

Iterative methods

A Fault-Tolerant Distributed Framework for Asynchronous Iterative Computations. *Zhou, T.*, +, *TPDS Aug. 2021 2062-2073*

A Parallel Jacobi-Embedded Gauss-Seidel Method. *Ahmadi, A.*, +, *TPDS June 2021 1452-1464*

Accelerating Large-Scale Prioritized Graph Computations by Hotness Balanced Partition. *Gong, S.*, +, *TPDS April 2021 746-759*

FedSCR: Structure-Based Communication Reduction for Federated Learning. *Wu, X.*, +, *TPDS July 2021 1565-1577*

J**Job shop scheduling**

An Elastic Task Scheduling Scheme on Coarse-Grained Reconfigurable Architectures. *Chen, L.*, +, *TPDS Dec. 2021 3066-3080*

Coflow Scheduling in Data Centers: Routing and Bandwidth Allocation. *Shi, L.*, +, *TPDS Nov. 2021 2661-2675*

L**Language translation**

Efficient Methods for Mapping Neural Machine Translator on FPGAs. *Li, Q.*, +, *TPDS July 2021 1866-1877*

Lattices

Analysis of GPU Data Access Patterns on Complex Geometries for the D3Q19 Lattice Boltzmann Algorithm. *Herschlag, G.*, +, *TPDS Oct. 2021 2400-2414*

LAYOUT

Analysis of GPU Data Access Patterns on Complex Geometries for the D3Q19 Lattice Boltzmann Algorithm. *Herschlag, G.*, +, *TPDS Oct. 2021 2400-2414*

Learning (artificial intelligence)

A Fault-Tolerant Distributed Framework for Asynchronous Iterative Computations. *Zhou, T.*, +, *TPDS Aug. 2021 2062-2073*

A Machine-Learning-Based Framework for Productive Locality Exploitation. *Kayraklioglu, E.*, +, *TPDS June 2021 1409-1424*

A Probabilistic Machine Learning Approach to Scheduling Parallel Loops With Bayesian Optimization. *Kim, K.*, +, *TPDS July 2021 1815-1827*

Accelerating Federated Learning Over Reliability-Agnostic Clients in Mobile Edge Computing Systems. *Wu, W.*, +, *TPDS July 2021 1539-1551*

Accelerating Gossip-Based Deep Learning in Heterogeneous Edge Computing Platforms. *Han, R.*, +, *TPDS July 2021 1591-1602*

Adaptive SpMV/SpMSpV on GPUs for Input Vectors of Varied Sparsity. *Li, M.*, +, *TPDS July 2021 1842-1853*

ADRL: A Hybrid Anomaly-Aware Deep Reinforcement Learning-Based Resource Scaling in Clouds. *Kardani-Moghaddam, S.*, +, *TPDS March 2021 514-526*

An Efficiency-Boosting Client Selection Scheme for Federated Learning With Fairness Guarantee. *Huang, T.*, +, *TPDS July 2021 1552-1564*

Biscotti: A Blockchain System for Private and Secure Federated Learning. *Shayan, M.*, +, *TPDS July 2021 1513-1525*

Canary: Decentralized Distributed Deep Learning Via Gradient Sketch and Partition in Multi-Interface Networks. *Zhou, Q.*, +, *TPDS April 2021 900-917*

Cryptomining Detection in Container Clouds Using System Calls and Explainable Machine Learning. *Karn, R.R.*, +, *TPDS March 2021 674-691*

Cuttlefish: Neural Configuration Adaptation for Video Analysis in Live Augmented Reality. *Chen, N.*, +, *TPDS April 2021 830-841*

Distributed and Collective Deep Reinforcement Learning for Computation Offloading: A Practical Perspective. *Qiu, X.*, +, *TPDS May 2021 1085-1101*

Distributed Task Migration Optimization in MEC by Extending Multi-Agent Deep Reinforcement Learning Approach. *Liu, C.*, +, *TPDS July 2021 1603-1614*

E²bird: Enhanced Elastic Batch for Improving Responsiveness and Throughput of Deep Learning Services. *Cui, W.*, +, *TPDS June 2021 1307-1321*

EDGES: An Efficient Distributed Graph Embedding System on GPU Clusters. *Yang, D.*, +, *TPDS July 2021 1892-1902*

Energy-Aware Inference Offloading for DNN-Driven Applications in Mobile Edge Clouds. *Xu, Z.*, +, *TPDS April 2021 799-814*

Fast Adaptive Task Offloading in Edge Computing Based on Meta Reinforcement Learning. *Wang, J.*, +, *TPDS Jan. 2021 242-253*

FedSCR: Structure-Based Communication Reduction for Federated Learning. *Wu, X.*, +, *TPDS July 2021 1565-1577*

- Fine-Grained Powercap Allocation for Power-Constrained Systems Based on Multi-Objective Machine Learning. *Hao, M., +, TPDS July 2021 1789-1801*
- iMLBench: A Machine Learning Benchmark Suite for CPU-GPU Integrated Architectures. *Zhang, C., +, TPDS July 2021 1740-1752*
- Improving HW/SW Adaptability for Accelerating CNNs on FPGAs Through A Dynamic/Static Co-Reconfiguration Approach. *Gong, L., +, TPDS July 2021 1854-1865*
- Learning Spatiotemporal Failure Dependencies for Resilient Edge Computing Services. *Aral, A., +, TPDS July 2021 1578-1590*
- Learning-Driven Interference-Aware Workload Parallelization for Streaming Applications in Heterogeneous Cluster. *Zhang, H., +, TPDS Jan. 2021 1-15*
- Multi-Agent Imitation Learning for Pervasive Edge Computing: A Decentralized Computation Offloading Algorithm. *Wang, X., +, TPDS Feb. 2021 411-425*
- Mutual Information Driven Federated Learning. *Uddin, M.P., +, TPDS July 2021 1526-1538*
- Parallel Blockwise Knowledge Distillation for Deep Neural Network Compression. *Blakeney, C., +, TPDS July 2021 1765-1776*
- Petrel: Heterogeneity-Aware Distributed Deep Learning Via Hybrid Synchronization. *Zhou, Q., +, TPDS May 2021 1030-1043*
- PQC Acceleration Using GPUs: FrodoKEM, NewHope, and Kyber. *Gupta, N., +, TPDS March 2021 575-586*
- Privacy-Preserving Computation Offloading for Parallel Deep Neural Networks Training. *Mao, Y., +, TPDS July 2021 1777-1788*
- Proof of Federated Learning: A Novel Energy-Recycling Consensus Algorithm. *Qu, X., +, TPDS Aug. 2021 2074-2085*
- Self-Balancing Federated Learning With Global Imbalanced Data in Mobile Systems. *Duan, M., +, TPDS Jan. 2021 59-71*
- SGD\$_\lambda\$Tucker: A Novel Stochastic Optimization Strategy for Parallel Sparse Tucker Decomposition. *Li, H., +, TPDS July 2021 1828-1841*
- SmartTuning: Selecting Hyper-Parameters of a ConvNet System for Fast Training and Small Working Memory. *Li, X., +, TPDS July 2021 1690-1701*
- The Case for Strong Scaling in Deep Learning: Training Large 3D CNNs With Hybrid Parallelism. *Oyama, Y., +, TPDS July 2021 1641-1652*
- The Deep Learning Compiler: A Comprehensive Survey. *Li, M., +, TPDS March 2021 708-727*
- Thermal Prediction for Efficient Energy Management of Clouds Using Machine Learning. *Ilager, S., +, TPDS May 2021 1044-1056*
- Towards Efficient Scheduling of Federated Mobile Devices Under Computational and Statistical Heterogeneity. *Wang, C., +, TPDS Feb. 2021 394-410*
- Towards Greening MapReduce Clusters Considering Both Computation Energy and Cooling Energy. *Toha, T.R., +, TPDS April 2021 931-942*
- Towards Minimizing Resource Usage With QoS Guarantee in Cloud Gaming. *Li, Y., +, TPDS Feb. 2021 426-440*
- Why Dataset Properties Bound the Scalability of Parallel Machine Learning Training Algorithms. *Cheng, D., +, TPDS July 2021 1702-1712*
- Legged locomotion**
- Scalable Energy Games Solvers on GPUs. *Formisano, A., +, TPDS Dec. 2021 2970-2982*
- Linear algebra**
- GPU Tensor Cores for Fast Arithmetic Reductions. *Navarro, C.A., +, TPDS Jan. 2021 72-84*
- YuenyeungSpTRSV: A Thread-Level and Warp-Level Fusion Synchronization-Free Sparse Triangular Solve. *Zhang, F., +, TPDS Sept. 2021 2321-2337*
- Linear programming**
- Decentralized Dual Proximal Gradient Algorithms for Non-Smooth Constrained Composite Optimization Problems. *Li, H., +, TPDS Oct. 2021 2594-2605*
- On the Effective Parallelization and Near-Optimal Deployment of Service Function Chains. *Luo, J., +, TPDS May 2021 1238-1255*
- Linear systems**
- A Parallel Jacobi-Embedded Gauss-Seidel Method. *Ahmadi, A., +, TPDS June 2021 1452-1464*
- Linux**
- A Thread Level SLO-Aware I/O Framework for Embedded Virtualization. *Gong, X., +, TPDS March 2021 500-513*
- Cryptomining Detection in Container Clouds Using System Calls and Explainable Machine Learning. *Karn, R.R., +, TPDS March 2021 674-691*
- Load management**
- Structured Allocation-Based Consistent Hashing With Improved Balancing for Cloud Infrastructure. *Nakatani, Y., TPDS Sept. 2021 2248-2261*
- Load modeling**
- Efficient Data Loader for Fast Sampling-Based GNN Training on Large Graphs. *Bai, Y., +, TPDS Oct. 2021 2541-2556*
- Loading**
- Efficient Data Loader for Fast Sampling-Based GNN Training on Large Graphs. *Bai, Y., +, TPDS Oct. 2021 2541-2556*
- Logic design**
- A Resource and Performance Optimization Reduction Circuit on FPGAs. *Tang, L., +, TPDS Feb. 2021 355-366*
- O3BNN-R: An Out-of-Order Architecture for High-Performance and Regularized BNN Inference. *Geng, T., +, TPDS Jan. 2021 199-213*
- Transformations of High-Level Synthesis Codes for High-Performance Computing. *de Fine Licht, J., +, TPDS May 2021 1014-1029*
- Logic gates**
- A Quantum Approach Towards the Adaptive Prediction of Cloud Workloads. *Singh, A.K., +, TPDS Dec. 2021 2893-2905*
- BALS: Blocked Alternating Least Squares for Parallel Sparse Matrix Factorization on GPUs. *Chen, J., +, TPDS Sept. 2021 2291-2302*
- M**
- Machine learning**
- An Efficient Parallel Secure Machine Learning Framework on GPUs. *Zhang, F., +, TPDS Sept. 2021 2262-2276*
- Decentralized Dual Proximal Gradient Algorithms for Non-Smooth Constrained Composite Optimization Problems. *Li, H., +, TPDS Oct. 2021 2594-2605*
- GML: Efficiently Auto-Tuning Flink's Configurations Via Guided Machine Learning. *Guo, Y., +, TPDS Dec. 2021 2921-2935*
- Guest Editorial. *Balaji, P., +, TPDS July 2021 1511-1512*
- VeriML: Enabling Integrity Assurances and Fair Payments for Machine Learning as a Service. *Zhao, L., +, TPDS Oct. 2021 2524-2540*
- Machine learning algorithms**
- An Efficient Parallel Secure Machine Learning Framework on GPUs. *Zhang, F., +, TPDS Sept. 2021 2262-2276*
- Decentralized Dual Proximal Gradient Algorithms for Non-Smooth Constrained Composite Optimization Problems. *Li, H., +, TPDS Oct. 2021 2594-2605*
- Magnetohydrodynamics**
- K-Athena: A Performance Portable Structured Grid Finite Volume Magnetohydrodynamics Code. *Grete, P., +, TPDS Jan. 2021 85-97*
- Manufacturing processes**
- A Hybrid Fuzzy Convolutional Neural Network Based Mechanism for Photovoltaic Cell Defect Detection With Electroluminescence Images. *Ge, C., +, TPDS July 2021 1653-1664*
- Market research**
- Critique of "Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility" by SCC Team From National Tsing Hua University. *Sun, W., +, TPDS Nov. 2021 2623-2626*
- Spartan: A Sparsity-Adaptive Framework to Accelerate Deep Neural Network Training on GPUs. *Dong, S., +, TPDS Oct. 2021 2448-2463*
- Markov processes**
- A Generic Stochastic Model for Resource Availability in Fog Computing Environments. *Battula, S.K., +, TPDS April 2021 960-974*
- Distributed and Dynamic Service Placement in Pervasive Edge Computing Networks. *Ning, Z., +, TPDS June 2021 1277-1292*
- Distributed Task Migration Optimization in MEC by Extending Multi-Agent Deep Reinforcement Learning Approach. *Liu, C., +, TPDS July 2021 1603-1614*

Mars

Critique of “Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility” by SCC Team From National Tsing Hua University. *Sun, W., +, TPDS Nov. 2021 2623-2626*

Critique of “Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility” by SCC Team From University of Washington. *Liu, D., +, TPDS Nov. 2021 2639-2642*

Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility. *Shi, J., +, TPDS Nov. 2021 2609-2622*

Mathematical model

3D Perception With Slanted Stixels on GPU. *Hernandez-Juarez, D., +, TPDS Oct. 2021 2434-2447*

Critique of “Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility” by SCC Team From National Tsing Hua University. *Sun, W., +, TPDS Nov. 2021 2623-2626*

DTransE: Distributed Translating Embedding for Knowledge Graph. *Song, D., +, TPDS Oct. 2021 2509-2523*

High Performance Multivariate Geospatial Statistics on Manycore Systems. *Salvana, M.L.O., +, TPDS Nov. 2021 2719-2733*

Mathematical programming

A Scalable Stateful Approach for Virtual Security Functions Orchestration. *Moradi, N., +, TPDS June 2021 1383-1394*

Matrix algebra

A Parallel Jacobi-Embedded Gauss-Seidel Method. *Ahmadi, A., +, TPDS June 2021 1452-1464*

SGD \setminus \setminus Tucker: A Novel Stochastic Optimization Strategy for Parallel Sparse Tucker Decomposition. *Li, H., +, TPDS July 2021 1828-1841*

True Load Balancing for Matricized Tensor Times Khatri-Rao Product. *Abubaker, N., +, TPDS Aug. 2021 1974-1986*

Matrix decomposition

BALS: Blocked Alternating Least Squares for Parallel Sparse Matrix Factorization on GPUs. *Chen, J., +, TPDS Sept. 2021 2291-2302*

Partitioning Models for General Medium-Grain Parallel Sparse Tensor Decomposition. *Karsavuran, M.O., +, TPDS Jan. 2021 147-159*

SGD \setminus \setminus Tucker: A Novel Stochastic Optimization Strategy for Parallel Sparse Tucker Decomposition. *Li, H., +, TPDS July 2021 1828-1841*

True Load Balancing for Matricized Tensor Times Khatri-Rao Product. *Abubaker, N., +, TPDS Aug. 2021 1974-1986*

Matrix multiplication

A Parallel Structured Divide-and-Conquer Algorithm for Symmetric Tridiagonal Eigenvalue Problems. *Liao, X., +, TPDS Feb. 2021 367-378*

A Resource and Performance Optimization Reduction Circuit on FPGAs. *Tang, L., +, TPDS Feb. 2021 355-366*

Accelerating Binarized Neural Networks via Bit-Tensor-Cores in Turing GPUs. *Li, A., +, TPDS July 2021 1878-1891*

Adaptive SpMV/SpM \setminus SpV on GPUs for Input Vectors of Varied Sparsity. *Li, M., +, TPDS July 2021 1842-1853*

Bi-Objective Optimization of Data-Parallel Applications on Heterogeneous HPC Platforms for Performance and Energy Through Workload Distribution. *Khaleghzadeh, H., +, TPDS March 2021 543-560*

FT-CNN: Algorithm-Based Fault Tolerance for Convolutional Neural Networks. *Zhao, K., +, TPDS July 2021 1677-1689*

Hardware Accelerator Integration Tradeoffs for High-Performance Computing: A Case Study of GEMM Acceleration in N-Body Methods. *Asri, M., +, TPDS Aug. 2021 2035-2048*

Partitioning Models for General Medium-Grain Parallel Sparse Tensor Decomposition. *Karsavuran, M.O., +, TPDS Jan. 2021 147-159*

PQC Acceleration Using GPUs: FrodoKEM, NewHope, and Kyber. *Gupta, N., +, TPDS March 2021 575-586*

SGD \setminus \setminus Tucker: A Novel Stochastic Optimization Strategy for Parallel Sparse Tucker Decomposition. *Li, H., +, TPDS July 2021 1828-1841*

True Load Balancing for Matricized Tensor Times Khatri-Rao Product. *Abubaker, N., +, TPDS Aug. 2021 1974-1986*

Memory architecture

A Machine-Learning-Based Framework for Productive Locality Exploitation. *Kayraklioglu, E., +, TPDS June 2021 1409-1424*

Multi-GPU Design and Performance Evaluation of Homomorphic Encryption on GPU Clusters. *Al Badawi, A., +, TPDS Feb. 2021 379-391*

True Load Balancing for Matricized Tensor Times Khatri-Rao Product. *Abubaker, N., +, TPDS Aug. 2021 1974-1986*

Memory management

Analysis of GPU Data Access Patterns on Complex Geometries for the D3Q19 Lattice Boltzmann Algorithm. *Herschlag, G., +, TPDS Oct. 2021 2400-2414*

Architectural Adaptation and Performance-Energy Optimization for CFD Application on AMD EPYC Rome. *Szustak, L., +, TPDS Dec. 2021 2852-2866*

DTransE: Distributed Translating Embedding for Knowledge Graph. *Song, D., +, TPDS Oct. 2021 2509-2523*

Memory-Side Prefetching Scheme Incorporating Dynamic Page Mode in 3D-Stacked DRAM. *Rafique, M.M., +, TPDS Nov. 2021 2734-2747*

Structured Allocation-Based Consistent Hashing With Improved Balancing for Cloud Infrastructure. *Nakatani, Y., TPDS Sept. 2021 2248-2261*

The Case for Cross-Component Power Coordination on Power Bounded Systems. *Ge, R., +, TPDS Oct. 2021 2464-2476*

Memory modules

The Case for Cross-Component Power Coordination on Power Bounded Systems. *Ge, R., +, TPDS Oct. 2021 2464-2476*

Message passing

A Machine-Learning-Based Framework for Productive Locality Exploitation. *Kayraklioglu, E., +, TPDS June 2021 1409-1424*

A Runtime and Non-Intrusive Approach to Optimize EDP by Tuning Threads and CPU Frequency for OpenMP Applications. *Schwarzrock, J., +, TPDS July 2021 1713-1724*

Canary: Decentralized Distributed Deep Learning Via Gradient Sketch and Partition in Multi-Interface Networks. *Zhou, Q., +, TPDS April 2021 900-917*

CASpMV: A Customized and Accelerative SpMV Framework for the Sunway TaihuLight. *Xiao, G., +, TPDS Jan. 2021 131-146*

Dynamic Load Balancing in Parallel Execution of Cellular Automata. *Gior-dano, A., +, TPDS Feb. 2021 470-484*

Fine-Grained Powercap Allocation for Power-Constrained Systems Based on Multi-Objective Machine Learning. *Hao, M., +, TPDS July 2021 1789-1801*

High-Performance Computing Implementations of Agent-Based Economic Models for Realizing 1:1 Scale Simulations of Large Economies. *Gill, A., +, TPDS Aug. 2021 2101-2114*

Middleware to Manage Fault Tolerance Using Semi-Coordinated Checkpoints. *Wong, A., +, TPDS Feb. 2021 254-268*

MO-Tree: An Efficient Forwarding Engine for Spatiotemporal-Aware Pub/Sub Systems. *Ding, T., +, TPDS April 2021 855-866*

PredCom: A Predictive Approach to Collecting Approximated Communication Traces. *Miwa, S., +, TPDS Jan. 2021 45-58*

Resettable Encoded Vector Clock for Causality Analysis With an Application to Dynamic Race Detection. *Pozzetti, T., +, TPDS April 2021 772-785*

Message systems

Trust: Triangle Counting Reloaded on GPUs. *Pandey, S., +, TPDS Nov. 2021 2646-2660*

Tardiness Bounds for Sporadic Gang Tasks Under Preemptive Global EDF Scheduling. *Dong, Z., +, TPDS Dec. 2021 2867-2879*

Metadata

OWebSync: Seamless Synchronization of Distributed Web Clients. *Jannes, K., +, TPDS Sept. 2021 2338-2351*

Meteorology

High Performance Multivariate Geospatial Statistics on Manycore Systems. *Salvana, M.L.O., +, TPDS Nov. 2021 2719-2733*

Microarchitecture

Fast, Accurate Processor Evaluation Through Heterogeneous, Sample-Based Benchmarking. *Prieto, P., +, TPDS Dec. 2021 2983-2995*

Microprocessor chips

A Runtime and Non-Intrusive Approach to Optimize EDP by Tuning Threads and CPU Frequency for OpenMP Applications. *Schwarzrock, J., +, TPDS July 2021 1713-1724*

Accelerating End-to-End Deep Learning Workflow With Codesign of Data Preprocessing and Scheduling. *Cheng, Y., +, TPDS July 2021 1802-1814*

- Canary: Decentralized Distributed Deep Learning Via Gradient Sketch and Partition in Multi-Interface Networks. *Zhou, Q.*, +, *TPDS April 2021 900-917*
- Energy-Efficient Hardware-Accelerated Synchronization for Shared-L1-Memory Multiprocessor Clusters. *Glaser, F.*, +, *TPDS March 2021 633-648*
- Fine-Grained Powercap Allocation for Power-Constrained Systems Based on Multi-Objective Machine Learning. *Hao, M.*, +, *TPDS July 2021 1789-1801*
- Middleware**
- Data Life Aware Model Updating Strategy for Stream-Based Online Deep Learning. *Rang, W.*, +, *TPDS Oct. 2021 2571-2581*
- Middleware to Manage Fault Tolerance Using Semi-Coordinated Checkpoints. *Wong, A.*, +, *TPDS Feb. 2021 254-268*
- MO-Tree: An Efficient Forwarding Engine for Spatiotemporal-Aware Pub/Sub Systems. *Ding, T.*, +, *TPDS April 2021 855-866*
- OWebSync: Seamless Synchronization of Distributed Web Clients. *Jannes, K.*, +, *TPDS Sept. 2021 2338-2351*
- Minimax techniques**
- A Probabilistic Machine Learning Approach to Scheduling Parallel Loops With Bayesian Optimization. *Kim, K.*, +, *TPDS July 2021 1815-1827*
- Minimization**
- Canary: Decentralized Distributed Deep Learning Via Gradient Sketch and Partition in Multi-Interface Networks. *Zhou, Q.*, +, *TPDS April 2021 900-917*
- Joint SFC Deployment and Resource Management in Heterogeneous Edge for Latency Minimization. *Liu, Y.*, +, *TPDS Aug. 2021 2131-2143*
- Online Collaborative Data Caching in Edge Computing. *Xia, X.*, +, *TPDS Feb. 2021 281-294*
- Towards Efficient Scheduling of Federated Mobile Devices Under Computational and Statistical Heterogeneity. *Wang, C.*, +, *TPDS Feb. 2021 394-410*
- Mobile computing**
- Accelerating Federated Learning Over Reliability-Agnostic Clients in Mobile Edge Computing Systems. *Wu, W.*, +, *TPDS July 2021 1539-1551*
- Auditing Cache Data Integrity in the Edge Computing Environment. *Li, B.*, +, *TPDS May 2021 1210-1223*
- Burst Load Evacuation Based on Dispatching and Scheduling In Distributed Edge Networks. *Deng, S.*, +, *TPDS Aug. 2021 1918-1932*
- Cost-Effective App Data Distribution in Edge Computing. *Xia, X.*, +, *TPDS Jan. 2021 31-44*
- Distributed and Collective Deep Reinforcement Learning for Computation Offloading: A Practical Perspective. *Qiu, X.*, +, *TPDS May 2021 1085-1101*
- Distributed and Dynamic Service Placement in Pervasive Edge Computing Networks. *Ning, Z.*, +, *TPDS June 2021 1277-1292*
- Energy-Aware Inference Offloading for DNN-Driven Applications in Mobile Edge Clouds. *Xu, Z.*, +, *TPDS April 2021 799-814*
- Model Parallelism Optimization for Distributed Inference Via Decoupled CNN Structure. *Du, J.*, +, *TPDS July 2021 1665-1676*
- Multi-Agent Imitation Learning for Pervasive Edge Computing: A Decentralized Computation Offloading Algorithm. *Wang, X.*, +, *TPDS Feb. 2021 411-425*
- Mutual Information Driven Federated Learning. *Uddin, M.P.*, +, *TPDS July 2021 1526-1538*
- Privacy-Preserving Computation Offloading for Parallel Deep Neural Networks Training. *Mao, Y.*, +, *TPDS July 2021 1777-1788*
- Self-Balancing Federated Learning With Global Imbalanced Data in Mobile Systems. *Duan, M.*, +, *TPDS Jan. 2021 59-71*
- Systematically Landing Machine Learning onto Market-Scale Mobile Malware Detection. *Gong, L.*, +, *TPDS July 2021 1615-1628*
- Towards Efficient Scheduling of Federated Mobile Devices Under Computational and Statistical Heterogeneity. *Wang, C.*, +, *TPDS Feb. 2021 394-410*
- Mobile handsets**
- Offloading Tasks With Dependency and Service Caching in Mobile Edge Computing. *Zhao, G.*, +, *TPDS Nov. 2021 2777-2792*
- Mobile radio**
- Fast Adaptive Task Offloading in Edge Computing Based on Meta Reinforcement Learning. *Wang, J.*, +, *TPDS Jan. 2021 242-253*
- Mobile robots**
- Distributed Adaptive Consensus Tracking Control for Multi-Agent System With Communication Constraints. *Zhang, P.*, +, *TPDS June 2021 1293-1306*
- Monitoring**
- PISTIS: An Event-Triggered Real-Time Byzantine-Resilient Protocol Suite. *Kozhaya, D.*, +, *TPDS Sept. 2021 2277-2290*
- Spartan: A Sparsity-Adaptive Framework to Accelerate Deep Neural Network Training on GPUs. *Dong, S.*, +, *TPDS Oct. 2021 2448-2463*
- Monte Carlo methods**
- Boosting Parallel Influence-Maximization Kernels for Undirected Networks With Fusing and Vectorization. *Gokturk, G.*, +, *TPDS May 2021 1001-1013*
- Moon**
- Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility. *Shi, J.*, +, *TPDS Nov. 2021 2609-2622*
- Motion pictures**
- BALS: Blocked Alternating Least Squares for Parallel Sparse Matrix Factorization on GPUs. *Chen, J.*, +, *TPDS Sept. 2021 2291-2302*
- Multi-access systems**
- Fast Adaptive Task Offloading in Edge Computing Based on Meta Reinforcement Learning. *Wang, J.*, +, *TPDS Jan. 2021 242-253*
- Multi-agent systems**
- Decentralized Dual Proximal Gradient Algorithms for Non-Smooth Constrained Composite Optimization Problems. *Li, H.*, +, *TPDS Oct. 2021 2594-2605*
- Distributed Adaptive Consensus Tracking Control for Multi-Agent System With Communication Constraints. *Zhang, P.*, +, *TPDS June 2021 1293-1306*
- Distributed Task Migration Optimization in MEC by Extending Multi-Agent Deep Reinforcement Learning Approach. *Liu, C.*, +, *TPDS July 2021 1603-1614*
- Hierarchical Multi-Agent Optimization for Resource Allocation in Cloud Computing. *Gao, X.*, +, *TPDS March 2021 692-707*
- Multi-Agent Imitation Learning for Pervasive Edge Computing: A Decentralized Computation Offloading Algorithm. *Wang, X.*, +, *TPDS Feb. 2021 411-425*
- Multi-robot systems**
- Distributed Adaptive Consensus Tracking Control for Multi-Agent System With Communication Constraints. *Zhang, P.*, +, *TPDS June 2021 1293-1306*
- Multi-threading**
- A Runtime and Non-Intrusive Approach to Optimize EDP by Tuning Threads and CPU Frequency for OpenMP Applications. *Schwarzrock, J.*, +, *TPDS July 2021 1713-1724*
- Collaborative Heterogeneity-Aware OS Scheduler for Asymmetric Multi-core Processors. *Yu, T.*, +, *TPDS May 2021 1224-1237*
- Efficient Buffer Overflow Detection on GPU. *Di, B.*, +, *TPDS May 2021 1161-1177*
- Subutai: Speeding Up Legacy Parallel Applications Through Data Synchronization. *Cataldo, R.*, +, *TPDS May 2021 1102-1116*
- Multicast algorithms**
- Efficient Virtual Network Embedding of Cloud-Based Data Center Networks into Optical Networks. *Fan, W.*, +, *TPDS Nov. 2021 2793-2808*
- Multicore processing**
- Tardiness Bounds for Sporadic Gang Tasks Under Preemptive Global EDF Scheduling. *Dong, Z.*, +, *TPDS Dec. 2021 2867-2879*
- WindFlow: High-Speed Continuous Stream Processing With Parallel Building Blocks. *Mencagli, G.*, +, *TPDS Nov. 2021 2748-2763*
- Multiprocessing systems**
- K-Athena: A Performance Portable Structured Grid Finite Volume Magneto-hydrodynamics Code. *Grete, P.*, +, *TPDS Jan. 2021 85-97*
- A Runtime and Non-Intrusive Approach to Optimize EDP by Tuning Threads and CPU Frequency for OpenMP Applications. *Schwarzrock, J.*, +, *TPDS July 2021 1713-1724*
- A Thread Level SLO-Aware I/O Framework for Embedded Virtualization. *Gong, X.*, +, *TPDS March 2021 500-513*

An Optimized Weighted Average Makespan in Fault-Tolerant Heterogeneous MPSoCs. *Youness, H.*, +, *TPDS Aug. 2021 1933-1946*

Bi-Objective Optimization of Data-Parallel Applications on Heterogeneous HPC Platforms for Performance and Energy Through Workload Distribution. *Khaleghzadeh, H.*, +, *TPDS March 2021 543-560*

Collaborative Heterogeneity-Aware OS Scheduler for Asymmetric Multi-core Processors. *Yu, T.*, +, *TPDS May 2021 1224-1237*

Energy-Efficient Hardware-Accelerated Synchronization for Shared-L1-Memory Multiprocessor Clusters. *Glaser, F.*, +, *TPDS March 2021 633-648*

Fine-Grained Powercap Allocation for Power-Constrained Systems Based on Multi-Objective Machine Learning. *Hao, M.*, +, *TPDS July 2021 1789-1801*

Multi-GPU Design and Performance Evaluation of Homomorphic Encryption on GPU Clusters. *Al Badawi, A.*, +, *TPDS Feb. 2021 379-391*

Parallel Blockwise Knowledge Distillation for Deep Neural Network Compression. *Blakeney, C.*, +, *TPDS July 2021 1765-1776*

Parallelization and Optimization of NSGA-II on Sunway TaihuLight System. *Liu, X.*, +, *TPDS April 2021 975-987*

Partitioning-Based Scheduling of OpenMP Task Systems With Tied Tasks. *Wang, Y.*, +, *TPDS June 2021 1322-1339*

Multithreading

Virtualization Overhead of Multithreading in X86 State-of-the-Art & Remaining Challenges. *Schildermans, S.*, +, *TPDS Oct. 2021 2557-2570*

N

NAND circuits

Co-Active: A Workload-Aware Collaborative Cache Management Scheme for NVMe SSDs. *Sun, H.*, +, *TPDS June 2021 1437-1451*

Natural language processing

An Automatic Synthesizer of Advising Tools for High Performance Computing. *Guan, H.*, +, *TPDS Feb. 2021 330-341*

Efficient Methods for Mapping Neural Machine Translator on FPGAs. *Li, Q.*, +, *TPDS July 2021 1866-1877*

Parallel Blockwise Knowledge Distillation for Deep Neural Network Compression. *Blakeney, C.*, +, *TPDS July 2021 1765-1776*

Network routing

Coarse-Grained Parallel Routing With Recursive Partitioning for FPGAs. *Shen, M.*, +, *TPDS April 2021 884-899*

Network systems

Self-Stabilizing Population Protocols With Global Knowledge. *Sudo, Y.*, +, *TPDS Dec. 2021 3011-3023*

Network theory (graphs)

Boosting Parallel Influence-Maximization Kernels for Undirected Networks With Fusing and Vectorization. *Gokturk, G.*, +, *TPDS May 2021 1001-1013*

Network topology

Efficient Forwarding Anomaly Detection in Software-Defined Networks. *Li, Q.*, +, *TPDS Nov. 2021 2676-2690*

Neural chips

Multi-GPU Design and Performance Evaluation of Homomorphic Encryption on GPU Clusters. *Al Badawi, A.*, +, *TPDS Feb. 2021 379-391*

O3BNN-R: An Out-of-Order Architecture for High-Performance and Regularized BNN Inference. *Geng, T.*, +, *TPDS Jan. 2021 199-213*

Neural network architecture

O3BNN-R: An Out-of-Order Architecture for High-Performance and Regularized BNN Inference. *Geng, T.*, +, *TPDS Jan. 2021 199-213*

Neural networks

A Quantum Approach Towards the Adaptive Prediction of Cloud Workloads. *Singh, A.K.*, +, *TPDS Dec. 2021 2893-2905*

A Scalable Platform for Distributed Object Tracking Across a Many-Camera Network. *Khochare, A.*, +, *TPDS June 2021 1479-1493*

Accelerating End-to-End Deep Learning Workflow With Codesign of Data Preprocessing and Scheduling. *Cheng, Y.*, +, *TPDS July 2021 1802-1814*

Cuttlefish: Neural Configuration Adaptation for Video Analysis in Live Augmented Reality. *Chen, N.*, +, *TPDS April 2021 830-841*

Distributed and Collective Deep Reinforcement Learning for Computation Offloading: A Practical Perspective. *Qiu, X.*, +, *TPDS May 2021 1085-1101*

E²bird: Enhanced Elastic Batch for Improving Responsiveness and Throughput of Deep Learning Services. *Cui, W.*, +, *TPDS June 2021 1307-1321*

EDGES: An Efficient Distributed Graph Embedding System on GPU Clusters. *Yang, D.*, +, *TPDS July 2021 1892-1902*

Energy-Aware Inference Offloading for DNN-Driven Applications in Mobile Edge Clouds. *Xu, Z.*, +, *TPDS April 2021 799-814*

Fast Adaptive Task Offloading in Edge Computing Based on Meta Reinforcement Learning. *Wang, J.*, +, *TPDS Jan. 2021 242-253*

Overlapping Communication With Computation in Parameter Server for Scalable DL Training. *Wang, S.*, +, *TPDS Sept. 2021 2144-2159*

Parallel Blockwise Knowledge Distillation for Deep Neural Network Compression. *Blakeney, C.*, +, *TPDS July 2021 1765-1776*

Petrel: Heterogeneity-Aware Distributed Deep Learning Via Hybrid Synchronization. *Zhou, Q.*, +, *TPDS May 2021 1030-1043*

Privacy-Preserving Computation Offloading for Parallel Deep Neural Networks Training. *Mao, Y.*, +, *TPDS July 2021 1777-1788*

Self-Balancing Federated Learning With Global Imbalanced Data in Mobile Systems. *Duan, M.*, +, *TPDS Jan. 2021 59-71*

SmartTuning: Selecting Hyper-Parameters of a ConvNet System for Fast Training and Small Working Memory. *Li, X.*, +, *TPDS July 2021 1690-1701*

The Deep Learning Compiler: A Comprehensive Survey. *Li, M.*, +, *TPDS March 2021 708-727*

Noise measurement

Octans: Optimal Placement of Service Function Chains in Many-Core Systems. *Yu, H.*, +, *TPDS Sept. 2021 2202-2215*

Nonlinear control systems

Distributed Adaptive Consensus Tracking Control for Multi-Agent System With Communication Constraints. *Zhang, P.*, +, *TPDS June 2021 1293-1306*

Number theory

PQC Acceleration Using GPUs: FrodoKEM, NewHope, and Kyber. *Gupta, N.*, +, *TPDS March 2021 575-586*

Numerical models

High Performance Multivariate Geospatial Statistics on Manycore Systems. *Salvana, M.L.O.*, +, *TPDS Nov. 2021 2719-2733*

O

Object detection

Cuttlefish: Neural Configuration Adaptation for Video Analysis in Live Augmented Reality. *Chen, N.*, +, *TPDS April 2021 830-841*

Object tracking

A Scalable Platform for Distributed Object Tracking Across a Many-Camera Network. *Khochare, A.*, +, *TPDS June 2021 1479-1493*

Operating system kernels

Cryptomining Detection in Container Clouds Using System Calls and Explainable Machine Learning. *Karn, R.R.*, +, *TPDS March 2021 674-691*

Operating systems (computers)

Collaborative Heterogeneity-Aware OS Scheduler for Asymmetric Multi-core Processors. *Yu, T.*, +, *TPDS May 2021 1224-1237*

Joint Task Scheduling and Containerizing for Efficient Edge Computing. *Zhang, J.*, +, *TPDS Aug. 2021 2086-2100*

Optical burst switching

Minimizing Coflow Completion Time in Optical Circuit Switched Networks. *Zhang, T.*, +, *TPDS Feb. 2021 457-469*

Optical fiber networks

Efficient Virtual Network Embedding of Cloud-Based Data Center Networks into Optical Networks. *Fan, W.*, +, *TPDS Nov. 2021 2793-2808*

Optical sensors

Efficient Virtual Network Embedding of Cloud-Based Data Center Networks into Optical Networks. *Fan, W.*, +, *TPDS Nov. 2021 2793-2808*

Optimal scheduling

Coflow Scheduling in Data Centers: Routing and Bandwidth Allocation. *Shi, L.*, +, *TPDS Nov. 2021 2661-2675*

Optimization

- Octans: Optimal Placement of Service Function Chains in Many-Core Systems. *Yu, H.*, +, *TPDS Sept. 2021 2202-2215*
- A Machine-Learning-Based Framework for Productive Locality Exploitation. *Kayraklioglu, E.*, +, *TPDS June 2021 1409-1424*
- A Probabilistic Machine Learning Approach to Scheduling Parallel Loops With Bayesian Optimization. *Kim, K.*, +, *TPDS July 2021 1815-1827*
- A Runtime and Non-Intrusive Approach to Optimize EDP by Tuning Threads and CPU Frequency for OpenMP Applications. *Schwarzrock, J.*, +, *TPDS July 2021 1713-1724*
- A Two-Phase Dynamic Throughput Optimization Model for Big Data Transfers. *Nine, M.S.Q.Z.*, +, *TPDS Feb. 2021 269-280*
- An Efficiency-Boosting Client Selection Scheme for Federated Learning With Fairness Guarantee. *Huang, T.*, +, *TPDS July 2021 1552-1564*
- An Efficient Parallel Secure Machine Learning Framework on GPUs. *Zhang, F.*, +, *TPDS Sept. 2021 2262-2276*
- Architectural Adaptation and Performance-Energy Optimization for CFD Application on AMD EPYC Rome. *Szustak, L.*, +, *TPDS Dec. 2021 2852-2866*
- Boosting Parallel Influence-Maximization Kernels for Undirected Networks With Fusing and Vectorization. *Gokturk, G.*, +, *TPDS May 2021 1001-1013*
- CASpMV: A Customized and Accelerative SpMV Framework for the Sunway TaihuLight. *Xiao, G.*, +, *TPDS Jan. 2021 131-146*
- Decentralized Dual Proximal Gradient Algorithms for Non-Smooth Constrained Composite Optimization Problems. *Li, H.*, +, *TPDS Oct. 2021 2594-2605*
- Distributed and Dynamic Service Placement in Pervasive Edge Computing Networks. *Ning, Z.*, +, *TPDS June 2021 1277-1292*
- Feluca: A Two-Stage Graph Coloring Algorithm With Color-Centric Paradigm on GPU. *Zheng, Z.*, +, *TPDS Jan. 2021 160-173*
- GML: Efficiently Auto-Tuning Flink's Configurations Via Guided Machine Learning. *Guo, Y.*, +, *TPDS Dec. 2021 2921-2935*
- MG-WFBP: Merging Gradients Wisely for Efficient Communication in Distributed Deep Learning. *Shi, S.*, +, *TPDS Aug. 2021 1903-1917*
- Minimizing Coflow Completion Time in Optical Circuit Switched Networks. *Zhang, T.*, +, *TPDS Feb. 2021 457-469*
- Model Parallelism Optimization for Distributed Inference Via Decoupled CNN Structure. *Du, J.*, +, *TPDS July 2021 1665-1676*
- Modeling and Optimization of Performance and Cost of Serverless Applications. *Lin, C.*, +, *TPDS March 2021 615-632*
- Multi-GPU Parallelization of the NAS Multi-Zone Parallel Benchmarks. *Gonzalez, M.*, +, *TPDS Jan. 2021 229-241*
- Multi-Hop Multi-Task Partial Computation Offloading in Collaborative Edge Computing. *Sahni, Y.*, +, *TPDS May 2021 1133-1145*
- Network-Aware Locality Scheduling for Distributed Data Operators in Data Centers. *Cheng, L.*, +, *TPDS June 2021 1494-1510*
- Offloading Tasks With Dependency and Service Caching in Mobile Edge Computing. *Zhao, G.*, +, *TPDS Nov. 2021 2777-2792*
- Optimizing the LINPACK Algorithm for Large-Scale PCIe-Based CPU-GPU Heterogeneous Systems. *Tan, G.*, +, *TPDS Sept. 2021 2367-2380*
- Parallel Fine-Grained Comparison of Long DNA Sequences in Homogeneous and Heterogeneous GPU Platforms With Pruning. *Figueiredo, M.*, +, *TPDS Dec. 2021 3053-3065*
- Realizing Best Checkpointing Control in Computing Systems. *Sigdel, P.*, +, *TPDS Feb. 2021 315-329*
- SGDStucker: A Novel Stochastic Optimization Strategy for Parallel Sparse Tucker Decomposition. *Li, H.*, +, *TPDS July 2021 1828-1841*
- The Deep Learning Compiler: A Comprehensive Survey. *Li, M.*, +, *TPDS March 2021 708-727*
- Towards Efficient Distributed Subgraph Enumeration Via Backtracking-Based Framework. *Wang, Z.*, +, *TPDS Dec. 2021 2953-2969*
- VeriML: Enabling Integrity Assurances and Fair Payments for Machine Learning as a Service. *Zhao, L.*, +, *TPDS Oct. 2021 2524-2540*
- Why Dataset Properties Bound the Scalability of Parallel Machine Learning Training Algorithms. *Cheng, D.*, +, *TPDS July 2021 1702-1712*

YuenyeungSpTRSV: A Thread-Level and Warp-Level Fusion Synchronization-Free Sparse Triangular Solve. *Zhang, F.*, +, *TPDS Sept. 2021 2321-2337*

Optimized production technology

Improved MPC Algorithms for Edit Distance and Ulam Distance. *Boroujeni, M.*, +, *TPDS Nov. 2021 2764-2776*

Outsourcing

- BOSSA: A Decentralized System for Proofs of Data Retrieval and Replication. *Chen, D.*, +, *TPDS April 2021 786-798*
- QShield: Protecting Outsourced Cloud Data Queries With Multi-User Access Control Based on SGX. *Chen, Y.*, +, *TPDS Feb. 2021 485-499*

P**Parallel algorithms**

- A Split Execution Model for SpTRSV. *Ahmad, N.*, +, *TPDS Nov. 2021 2809-2822*
- Accelerating Binarized Neural Networks via Bit-Tensor-Cores in Turing GPUs. *Li, A.*, +, *TPDS July 2021 1878-1891*
- Boosting Parallel Influence-Maximization Kernels for Undirected Networks With Fusing and Vectorization. *Gokturk, G.*, +, *TPDS May 2021 1001-1013*
- Feluca: A Two-Stage Graph Coloring Algorithm With Color-Centric Paradigm on GPU. *Zheng, Z.*, +, *TPDS Jan. 2021 160-173*
- GPU Tensor Cores for Fast Arithmetic Reductions. *Navarro, C.A.*, +, *TPDS Jan. 2021 72-84*
- PaKman: A Scalable Algorithm for Generating Genomic Contigs on Distributed Memory Machines. *Ghosh, P.*, +, *TPDS May 2021 1191-1209*
- Parallel Blockwise Knowledge Distillation for Deep Neural Network Compression. *Blakeney, C.*, +, *TPDS July 2021 1765-1776*
- Partitioning Models for General Medium-Grain Parallel Sparse Tensor Decomposition. *Karsavuran, M.O.*, +, *TPDS Jan. 2021 147-159*
- The Case for Strong Scaling in Deep Learning: Training Large 3D CNNs With Hybrid Parallelism. *Oyama, Y.*, +, *TPDS July 2021 1641-1652*
- Towards Efficient Large-Scale Interprocedural Program Static Analysis on Distributed Data-Parallel Computation. *Gu, R.*, +, *TPDS April 2021 867-883*
- True Load Balancing for Matricized Tensor Times Khatri-Rao Product. *Abubaker, N.*, +, *TPDS Aug. 2021 1974-1986*

Parallel architectures

- Accelerating Binarized Neural Networks via Bit-Tensor-Cores in Turing GPUs. *Li, A.*, +, *TPDS July 2021 1878-1891*
- CASpMV: A Customized and Accelerative SpMV Framework for the Sunway TaihuLight. *Xiao, G.*, +, *TPDS Jan. 2021 131-146*
- Scalable Energy Games Solvers on GPUs. *Formisano, A.*, +, *TPDS Dec. 2021 2970-2982*
- Transformations of High-Level Synthesis Codes for High-Performance Computing. *de Fine Licht, J.*, +, *TPDS May 2021 1014-1029*

Parallel computing

Guest Editorial. *Balaji, P.*, +, *TPDS July 2021 1511-1512*

Parallel languages

SEIZE: Runtime Inspection for Parallel Dataflow Systems. *Li, Y.*, +, *TPDS April 2021 842-854*

Parallel machines

- CASpMV: A Customized and Accelerative SpMV Framework for the Sunway TaihuLight. *Xiao, G.*, +, *TPDS Jan. 2021 131-146*
- Fine-Grained Powercap Allocation for Power-Constrained Systems Based on Multi-Objective Machine Learning. *Hao, M.*, +, *TPDS July 2021 1789-1801*
- Parallelization and Optimization of NSGA-II on Sunway TaihuLight System. *Liu, X.*, +, *TPDS April 2021 975-987*

Parallel processing

- A GPU Acceleration Framework for Motif and Discord Based Pattern Mining. *Zhu, B.*, +, *TPDS Aug. 2021 1987-2004*
- A Machine-Learning-Based Framework for Productive Locality Exploitation. *Kayraklioglu, E.*, +, *TPDS June 2021 1409-1424*
- An Automatic Synthesizer of Advising Tools for High Performance Computing. *Guan, H.*, +, *TPDS Feb. 2021 330-341*

- An Elastic Task Scheduling Scheme on Coarse-Grained Reconfigurable Architectures. *Chen, L., +, TPDS Dec. 2021 3066-3080*
- An Incremental Iterative Acceleration Architecture in Distributed Heterogeneous Environments With GPUs for Deep Learning. *Zhang, X., +, TPDS Nov. 2021 2823-2837*
- Analysis of Global and Local Synchronization in Parallel Computing. *Cicirelli, F., +, TPDS May 2021 988-1000*
- Bi-Objective Optimization of Data-Parallel Applications on Heterogeneous HPC Platforms for Performance and Energy Through Workload Distribution. *Khaleghzadeh, H., +, TPDS March 2021 543-560*
- Canary: Decentralized Distributed Deep Learning Via Gradient Sketch and Partition in Multi-Interface Networks. *Zhou, Q., +, TPDS April 2021 900-917*
- Coarse-Grained Parallel Routing With Recursive Partitioning for FPGAs. *Shen, M., +, TPDS April 2021 884-899*
- Design and Implementation of a Criticality- and Heterogeneity-Aware Runtime System for Task-Parallel Applications. *Han, M., +, TPDS May 2021 1117-1132*
- DTransE: Distributed Translating Embedding for Knowledge Graph. *Song, D., +, TPDS Oct. 2021 2509-2523*
- EDGES: An Efficient Distributed Graph Embedding System on GPU Clusters. *Yang, D., +, TPDS July 2021 1892-1902*
- Energy-Efficient Hardware-Accelerated Synchronization for Shared-L1-Memory Multiprocessor Clusters. *Glaser, F., +, TPDS March 2021 633-648*
- Hardware Accelerator Integration Tradeoffs for High-Performance Computing: A Case Study of GEMM Acceleration in N-Body Methods. *Asri, M., +, TPDS Aug. 2021 2035-2048*
- High-Performance Computing Implementations of Agent-Based Economic Models for Realizing 1:1 Scale Simulations of Large Economies. *Gill, A., +, TPDS Aug. 2021 2101-2114*
- High-Performance Routing With Multipathing and Path Diversity in Ethernet and HPC Networks. *Besta, M., +, TPDS April 2021 943-959*
- Logically Parallel Communication for Fast MPI+Threads Applications. *Zambre, R., +, TPDS Dec. 2021 3038-3052*
- Middleware to Manage Fault Tolerance Using Semi-Coordinated Checkpoints. *Wong, A., +, TPDS Feb. 2021 254-268*
- Model Parallelism Optimization for Distributed Inference Via Decoupled CNN Structure. *Du, J., +, TPDS July 2021 1665-1676*
- Multi-GPU Design and Performance Evaluation of Homomorphic Encryption on GPU Clusters. *Al Badawi, A., +, TPDS Feb. 2021 379-391*
- Optimised Lambda Architecture for Monitoring Scientific Infrastructure. *Suthakar, U., +, TPDS June 2021 1395-1408*
- PredCom: A Predictive Approach to Collecting Approximated Communication Traces. *Miwa, S., +, TPDS Jan. 2021 45-58*
- Profiles of Upcoming HPC Applications and Their Impact on Reservation Strategies. *Gainaru, A., +, TPDS May 2021 1178-1190*
- Subutai: Speeding Up Legacy Parallel Applications Through Data Synchronization. *Cataldo, R., +, TPDS May 2021 1102-1116*
- Tardiness Bounds for Sporadic Gang Tasks Under Preemptive Global EDF Scheduling. *Dong, Z., +, TPDS Dec. 2021 2867-2879*
- Towards Greening MapReduce Clusters Considering Both Computation Energy and Cooling Energy. *Toha, T.R., +, TPDS April 2021 931-942*
- Why Dataset Properties Bound the Scalability of Parallel Machine Learning Training Algorithms. *Cheng, D., +, TPDS July 2021 1702-1712*

Parallel programming

- K-Athena: A Performance Portable Structured Grid Finite Volume Magnetohydrodynamics Code. *Grete, P., +, TPDS Jan. 2021 85-97*
- A Runtime and Non-Intrusive Approach to Optimize EDP by Tuning Threads and CPU Frequency for OpenMP Applications. *Schwarzrock, J., +, TPDS July 2021 1713-1724*
- Coarse-Grained Parallel Routing With Recursive Partitioning for FPGAs. *Shen, M., +, TPDS April 2021 884-899*
- Parallel Blockwise Knowledge Distillation for Deep Neural Network Compression. *Blakeney, C., +, TPDS July 2021 1765-1776*
- SEIZE: Runtime Inspection for Parallel Dataflow Systems. *Li, Y., +, TPDS April 2021 842-854*

Pareto optimization

- Bi-Objective Optimization of Data-Parallel Applications on Heterogeneous HPC Platforms for Performance and Energy Through Workload Distribution. *Khaleghzadeh, H., +, TPDS March 2021 543-560*
- Fine-Grained Powercap Allocation for Power-Constrained Systems Based on Multi-Objective Machine Learning. *Hao, M., +, TPDS July 2021 1789-1801*
- Parallelization and Optimization of NSGA-II on Sunway TaihuLight System. *Liu, X., +, TPDS April 2021 975-987*

Partitioning algorithms

- Trust: Triangle Counting Reloaded on GPUs. *Pandey, S., +, TPDS Nov. 2021 2646-2660*
- DTransE: Distributed Translating Embedding for Knowledge Graph. *Song, D., +, TPDS Oct. 2021 2509-2523*
- Efficient Data Loader for Fast Sampling-Based GNN Training on Large Graphs. *Bai, Y., +, TPDS Oct. 2021 2541-2556*
- Group Reassignment for Dynamic Edge Partitioning. *Li, H., +, TPDS Oct. 2021 2477-2490*

Pattern classification

- Self-Balancing Federated Learning With Global Imbalanced Data in Mobile Systems. *Duan, M., +, TPDS Jan. 2021 59-71*

Pattern clustering

- Silhouette: Efficient Cloud Configuration Exploration for Large-Scale Analytics. *Chen, Y., +, TPDS Aug. 2021 2049-2061*
- A Distributed Framework for EA-Based NAS. *Ye, Q., +, TPDS July 2021 1753-1764*
- Design and Evaluation of a Risk-Aware Failure Identification Scheme for Improved RAS in Erasure-Coded Data Centers. *Huang, W., +, TPDS Jan. 2021 16-30*
- DL2: A Deep Learning-Driven Scheduler for Deep Learning Clusters. *Peng, Y., +, TPDS Aug. 2021 1947-1960*
- Towards Greening MapReduce Clusters Considering Both Computation Energy and Cooling Energy. *Toha, T.R., +, TPDS April 2021 931-942*

Pattern matching

- Timestamped State Sharing for Stream Analytics. *Zhao, Y., +, TPDS Nov. 2021 2691-2704*
- Towards Efficient Distributed Subgraph Enumeration Via Backtracking-Based Framework. *Wang, Z., +, TPDS Dec. 2021 2953-2969*

Peer-to-peer computing

- Biscotti: A Blockchain System for Private and Secure Federated Learning. *Shayan, M., +, TPDS July 2021 1513-1525*
- BOSSA: A Decentralized System for Proofs of Data Retrievability and Replication. *Chen, D., +, TPDS April 2021 786-798*
- LightChain: Scalable DHT-Based Blockchain. *Hassanzadeh-Nazarabadi, Y., +, TPDS Oct. 2021 2582-2593*
- Multi-Agent Imitation Learning for Pervasive Edge Computing: A Decentralized Computation Offloading Algorithm. *Wang, X., +, TPDS Feb. 2021 411-425*

Performance evaluation

- Accelerating Binarized Neural Networks via Bit-Tensor-Cores in Turing GPUs. *Li, A., +, TPDS July 2021 1878-1891*
- DeepSlicing: Collaborative and Adaptive CNN Inference With Low Latency. *Zhang, S., +, TPDS Sept. 2021 2175-2187*
- Efficient Buffer Overflow Detection on GPU. *Di, B., +, TPDS May 2021 1161-1177*
- Energy-Efficient Hardware-Accelerated Synchronization for Shared-L1-Memory Multiprocessor Clusters. *Glaser, F., +, TPDS March 2021 633-648*
- ETICA: Efficient Two-Level I/O Caching Architecture for Virtualized Platforms. *Ahmadian, S., +, TPDS Oct. 2021 2415-2433*
- Fast, Accurate Processor Evaluation Through Heterogeneous, Sample-Based Benchmarking. *Prieto, P., +, TPDS Dec. 2021 2983-2995*
- Fine-Grained Multi-Query Stream Processing on Integrated Architectures. *Zhang, F., +, TPDS Sept. 2021 2303-2320*
- Multi-GPU Parallelization of the NAS Multi-Zone Parallel Benchmarks. *Gonzalez, M., +, TPDS Jan. 2021 229-241*

Phased arrays

A Split Execution Model for SpTRSV. *Ahmad, N.*, +, *TPDS Nov. 2021 2809-2822*

Pipeline processing

Optimizing the LINPACK Algorithm for Large-Scale PCIe-Based CPU-GPU Heterogeneous Systems. *Tan, G.*, +, *TPDS Sept. 2021 2367-2380*

Transformations of High-Level Synthesis Codes for High-Performance Computing. *de Fine Licht, J.*, +, *TPDS May 2021 1014-1029*

Planets

Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility. *Shi, J.*, +, *TPDS Nov. 2021 2609-2622*

Polynomials

Homomorphic Sorting With Better Scalability. *Cetin, G.S.*, +, *TPDS April 2021 760-771*

Position control

Distributed Adaptive Consensus Tracking Control for Multi-Agent System With Communication Constraints. *Zhang, P.*, +, *TPDS June 2021 1293-1306*

Power apparatus

A Hybrid Fuzzy Convolutional Neural Network Based Mechanism for Photovoltaic Cell Defect Detection With Electroluminescence Images. *Ge, C.*, +, *TPDS July 2021 1653-1664*

Power aware computing

K-Athena: A Performance Portable Structured Grid Finite Volume Magneto-hydrodynamics Code. *Grete, P.*, +, *TPDS Jan. 2021 85-97*

A Game-Based Approach for Cost-Aware Task Assignment With QoS Constraint in Collaborative Edge and Cloud Environments. *Long, S.*, +, *TPDS July 2021 1629-1640*

A Runtime and Non-Intrusive Approach to Optimize EDP by Tuning Threads and CPU Frequency for OpenMP Applications. *Schwarzrock, J.*, +, *TPDS July 2021 1713-1724*

Adaptive Preference-Aware Co-Location for Improving Resource Utilization of Power Constrained Datacenters. *Pang, P.*, +, *TPDS Feb. 2021 441-456*

Bi-Objective Optimization of Data-Parallel Applications on Heterogeneous HPC Platforms for Performance and Energy Through Workload Distribution. *Khaleghzadeh, H.*, +, *TPDS March 2021 543-560*

Collaborative Heterogeneity-Aware OS Scheduler for Asymmetric Multi-core Processors. *Yu, T.*, +, *TPDS May 2021 1224-1237*

Design and Implementation of a Criticality- and Heterogeneity-Aware Runtime System for Task-Parallel Applications. *Han, M.*, +, *TPDS May 2021 1117-1132*

Distributed and Dynamic Service Placement in Pervasive Edge Computing Networks. *Ning, Z.*, +, *TPDS June 2021 1277-1292*

Energy-Efficient Hardware-Accelerated Synchronization for Shared-L1-Memory Multiprocessor Clusters. *Glaser, F.*, +, *TPDS March 2021 633-648*

Fine-Grained Powercap Allocation for Power-Constrained Systems Based on Multi-Objective Machine Learning. *Hao, M.*, +, *TPDS July 2021 1789-1801*

Hardware Accelerator Integration Tradeoffs for High-Performance Computing: A Case Study of GEMM Acceleration in N-Body Methods. *Asri, M.*, +, *TPDS Aug. 2021 2035-2048*

Parallel Blockwise Knowledge Distillation for Deep Neural Network Compression. *Blakeney, C.*, +, *TPDS July 2021 1765-1776*

Thermal Prediction for Efficient Energy Management of Clouds Using Machine Learning. *Ilager, S.*, +, *TPDS May 2021 1044-1056*

Towards Greening MapReduce Clusters Considering Both Computation Energy and Cooling Energy. *Toha, T.R.*, +, *TPDS April 2021 931-942*

Transformations of High-Level Synthesis Codes for High-Performance Computing. *de Fine Licht, J.*, +, *TPDS May 2021 1014-1029*

Power consumption

Design and Implementation of a Criticality- and Heterogeneity-Aware Runtime System for Task-Parallel Applications. *Han, M.*, +, *TPDS May 2021 1117-1132*

Power demand

The Case for Cross-Component Power Coordination on Power Bounded Systems. *Ge, R.*, +, *TPDS Oct. 2021 2464-2476*

Power system reliability

ETICA: Efficient Two-Level I/O Caching Architecture for Virtualized Platforms. *Ahmadian, S.*, +, *TPDS Oct. 2021 2415-2433*

Power systems

Decentralized Dual Proximal Gradient Algorithms for Non-Smooth Constrained Composite Optimization Problems. *Li, H.*, +, *TPDS Oct. 2021 2594-2605*

Prediction algorithms

A Quantum Approach Towards the Adaptive Prediction of Cloud Workloads. *Singh, A.K.*, +, *TPDS Dec. 2021 2893-2905*

DTransE: Distributed Translating Embedding for Knowledge Graph. *Song, D.*, +, *TPDS Oct. 2021 2509-2523*

IPPTS: An Efficient Algorithm for Scientific Workflow Scheduling in Heterogeneous Computing Systems. *Djigal, H.*, +, *TPDS May 2021 1057-1071*

Predictive models

A Quantum Approach Towards the Adaptive Prediction of Cloud Workloads. *Singh, A.K.*, +, *TPDS Dec. 2021 2893-2905*

Data Life Aware Model Updating Strategy for Stream-Based Online Deep Learning. *Rang, W.*, +, *TPDS Oct. 2021 2571-2581*

High Performance Multivariate Geospatial Statistics on Manycore Systems. *Salvana, M.L.O.*, +, *TPDS Nov. 2021 2719-2733*

Optimizing Resource Allocation for Data-Parallel Jobs Via GCN-Based Prediction. *Hu, Z.*, +, *TPDS Sept. 2021 2188-2201*

VeriML: Enabling Integrity Assurances and Fair Payments for Machine Learning as a Service. *Zhao, L.*, +, *TPDS Oct. 2021 2524-2540*

Prefetching

Memory-Side Prefetching Scheme Incorporating Dynamic Page Mode in 3D-Stacked DRAM. *Rafique, M.M.*, +, *TPDS Nov. 2021 2734-2747*

Pricing

A Case for Pricing Bandwidth: Sharing Datacenter Networks With Cost Dominant Fairness. *Chen, L.*, +, *TPDS May 2021 1256-1269*

Investigating the Adoption of Hybrid Encrypted Cloud Data Deduplication With Game Theory. *Liang, X.*, +, *TPDS March 2021 587-600*

Modeling and Analyzing Waiting Policies for Cloud-Enabled Schedulers. *Ambati, P.*, +, *TPDS Dec. 2021 3081-3100*

Modeling and Optimization of Performance and Cost of Serverless Applications. *Lin, C.*, +, *TPDS March 2021 615-632*

Privacy

Accurate Differentially Private Deep Learning on the Edge. *Han, R.*, +, *TPDS Sept. 2021 2231-2247*

Private key cryptography

Comment on "Circuit Ciphertext-Policy Attribute-Based Hybrid Encryption With Verifiable Delegation in Cloud Computing". *Cao, Z.*, +, *TPDS Feb. 2021 392-393*

Probability

A Scalable Multi-Layer PBFT Consensus for Blockchain. *Li, W.*, +, *TPDS May 2021 1146-1160*

Achieving Probabilistic Atomicity With Well-Bounded Staleness and Low Read Latency in Distributed Datastores. *Ouyang, L.*, +, *TPDS April 2021 815-829*

An Optimized Weighted Average Makespan in Fault-Tolerant Heterogeneous MPSoCs. *Youness, H.*, +, *TPDS Aug. 2021 1933-1946*

Auditing Cache Data Integrity in the Edge Computing Environment. *Li, B.*, +, *TPDS May 2021 1210-1223*

Learning Spatiotemporal Failure Dependencies for Resilient Edge Computing Services. *Aral, A.*, +, *TPDS July 2021 1578-1590*

Modeling and Optimization of Performance and Cost of Serverless Applications. *Lin, C.*, +, *TPDS March 2021 615-632*

Rings for Privacy: An Architecture for Large Scale Privacy-Preserving Data Mining. *Merani, M.L.*, +, *TPDS June 2021 1340-1352*

Probes

Efficient Forwarding Anomaly Detection in Software-Defined Networks. *Li, Q.*, +, *TPDS Nov. 2021 2676-2690*

Process control

PISTIS: An Event-Triggered Real-Time Byzantine-Resilient Protocol Suite. *Kozhaya, D.*, +, *TPDS Sept. 2021 2277-2290*

Processor scheduling

- A Probabilistic Machine Learning Approach to Scheduling Parallel Loops With Bayesian Optimization. *Kim, K.*, +, *TPDS July 2021 1815-1827*
- An Elastic Task Scheduling Scheme on Coarse-Grained Reconfigurable Architectures. *Chen, L.*, +, *TPDS Dec. 2021 3066-3080*
- An Optimized Weighted Average Makespan in Fault-Tolerant Heterogeneous MPSoCs. *Youness, H.*, +, *TPDS Aug. 2021 1933-1946*
- DeepSlicing: Collaborative and Adaptive CNN Inference With Low Latency. *Zhang, S.*, +, *TPDS Sept. 2021 2175-2187*
- E²bird: Enhanced Elastic Batch for Improving Responsiveness and Throughput of Deep Learning Services. *Cui, W.*, +, *TPDS June 2021 1307-1321*
- Multi-GPU Parallelization of the NAS Multi-Zone Parallel Benchmarks. *Gonzalez, M.*, +, *TPDS Jan. 2021 229-241*
- Online Scheduling Technique To Handle Data Velocity Changes in Stream Workflows. *Barika, M.*, +, *TPDS Aug. 2021 2115-2130*
- Partitioning-Based Scheduling of OpenMP Task Systems With Tied Tasks. *Wang, Y.*, +, *TPDS June 2021 1322-1339*
- Profiles of Upcoming HPC Applications and Their Impact on Reservation Strategies. *Gainaru, A.*, +, *TPDS May 2021 1178-1190*

Production

- Efficient Forwarding Anomaly Detection in Software-Defined Networks. *Li, Q.*, +, *TPDS Nov. 2021 2676-2690*

Production engineering computing

- A Hybrid Fuzzy Convolutional Neural Network Based Mechanism for Photovoltaic Cell Defect Detection With Electroluminescence Images. *Ge, C.*, +, *TPDS July 2021 1653-1664*

Program compilers

- A Machine-Learning-Based Framework for Productive Locality Exploitation. *Kayraklioglu, E.*, +, *TPDS June 2021 1409-1424*
- PredCom: A Predictive Approach to Collecting Approximated Communication Traces. *Miwa, S.*, +, *TPDS Jan. 2021 45-58*
- The Deep Learning Compiler: A Comprehensive Survey. *Li, M.*, +, *TPDS March 2021 708-727*
- Transformations of High-Level Synthesis Codes for High-Performance Computing. *de Fine Licht, J.*, +, *TPDS May 2021 1014-1029*

Program control structures

- A Probabilistic Machine Learning Approach to Scheduling Parallel Loops With Bayesian Optimization. *Kim, K.*, +, *TPDS July 2021 1815-1827*

Program diagnostics

- A Machine-Learning-Based Framework for Productive Locality Exploitation. *Kayraklioglu, E.*, +, *TPDS June 2021 1409-1424*
- Towards Efficient Large-Scale Interprocedural Program Static Analysis on Distributed Data-Parallel Computation. *Gu, R.*, +, *TPDS April 2021 867-883*

Program processors

- Architectural Adaptation and Performance-Energy Optimization for CFD Application on AMD EPYC Rome. *Szustak, L.*, +, *TPDS Dec. 2021 2852-2866*
- Fast, Accurate Processor Evaluation Through Heterogeneous, Sample-Based Benchmarking. *Prieto, P.*, +, *TPDS Dec. 2021 2983-2995*
- Identifying Degree and Sources of Non-Determinism in MPI Applications Via Graph Kernels. *Chapp, D.*, +, *TPDS Dec. 2021 2936-2952*
- IPPTS: An Efficient Algorithm for Scientific Workflow Scheduling in Heterogeneous Computing Systems. *Djigal, H.*, +, *TPDS May 2021 1057-1071*
- Memory-Side Prefetching Scheme Incorporating Dynamic Page Mode in 3D-Stacked DRAM. *Rafique, M.M.*, +, *TPDS Nov. 2021 2734-2747*

Program verification

- A Machine-Learning-Based Framework for Productive Locality Exploitation. *Kayraklioglu, E.*, +, *TPDS June 2021 1409-1424*
- Reversible CSP Computations. *Galindo, C.*, +, *TPDS June 2021 1425-1436*

Programming

- ARENA: Asynchronous Reconfigurable Accelerator Ring to Enable Data-Centric Parallel Computing. *Tan, C.*, +, *TPDS Dec. 2021 2880-2892*
- Logically Parallel Communication for Fast MPI+Threads Applications. *Zambre, R.*, +, *TPDS Dec. 2021 3038-3052*
- Optimizing the LINPACK Algorithm for Large-Scale PCIe-Based CPU-GPU Heterogeneous Systems. *Tan, G.*, +, *TPDS Sept. 2021 2367-2380*

Protocols

- A Two-Phase Dynamic Throughput Optimization Model for Big Data Transfers. *Nine, M.S.Q.Z.*, +, *TPDS Feb. 2021 269-280*
- Accelerating Gossip-Based Deep Learning in Heterogeneous Edge Computing Platforms. *Han, R.*, +, *TPDS July 2021 1591-1602*
- Biscotti: A Blockchain System for Private and Secure Federated Learning. *Shayan, M.*, +, *TPDS July 2021 1513-1525*
- Failure-Atomic Byte-Addressable R-tree for Persistent Memory. *Cho, S.*, +, *TPDS March 2021 601-614*
- MCFsyn: A Multi-Party Set Reconciliation Protocol With the Marked Cuckoo Filter. *Luo, L.*, +, *TPDS Nov. 2021 2705-2718*
- On Consortium Blockchain Consistency: A Queueing Network Model Approach. *Meng, T.*, +, *TPDS June 2021 1369-1382*
- Optimistic Causal Consistency for Geo-Replicated Key-Value Stores. *Spirovska, K.*, +, *TPDS March 2021 527-542*
- PISTIS: An Event-Triggered Real-Time Byzantine-Resilient Protocol Suite. *Kozhaya, D.*, +, *TPDS Sept. 2021 2277-2290*
- Reliability and Confidentiality Co-Verification for Parallel Applications in Distributed Systems. *Xie, G.*, +, *TPDS June 2021 1353-1368*
- Resettable Encoded Vector Clock for Causality Analysis With an Application to Dynamic Race Detection. *Pozzetti, T.*, +, *TPDS April 2021 772-785*
- Self-Stabilizing Population Protocols With Global Knowledge. *Sudo, Y.*, +, *TPDS Dec. 2021 3011-3023*

Prototypes

- Efficient Forwarding Anomaly Detection in Software-Defined Networks. *Li, Q.*, +, *TPDS Nov. 2021 2676-2690*

Public domain software

- Cryptomining Detection in Container Clouds Using System Calls and Explainable Machine Learning. *Karn, R.R.*, +, *TPDS March 2021 674-691*
- Large-Scale Analysis of Docker Images and Performance Implications for Container Storage Systems. *Zhao, N.*, +, *TPDS April 2021 918-930*

Public key cryptography

- Homomorphic Sorting With Better Scalability. *Cetin, G.S.*, +, *TPDS April 2021 760-771*

Q**Quality of experience**

- A Unified Framework for Flexible Playback Latency Control in Live Video Streaming. *Zhang, G.*, +, *TPDS Dec. 2021 3024-3037*
- Cuttlefish: Neural Configuration Adaptation for Video Analysis in Live Augmented Reality. *Chen, N.*, +, *TPDS April 2021 830-841*

Quality of service

- A Game-Based Approach for Cost-Aware Task Assignment With QoS Constraint in Collaborative Edge and Cloud Environments. *Long, S.*, +, *TPDS July 2021 1629-1640*
- Adaptive Preference-Aware Co-Location for Improving Resource Utilization of Power Constrained Datacenters. *Pang, P.*, +, *TPDS Feb. 2021 441-456*
- Distributed Task Migration Optimization in MEC by Extending Multi-Agent Deep Reinforcement Learning Approach. *Liu, C.*, +, *TPDS July 2021 1603-1614*
- E²bird: Enhanced Elastic Batch for Improving Responsiveness and Throughput of Deep Learning Services. *Cui, W.*, +, *TPDS June 2021 1307-1321*
- FRATO: Fog Resource Based Adaptive Task Offloading for Delay-Minimizing IoT Service Provisioning. *Tran-Dang, H.*, +, *TPDS Oct. 2021 2491-2508*
- Modeling and Optimization of Performance and Cost of Serverless Applications. *Lin, C.*, +, *TPDS March 2021 615-632*
- Online Collaborative Data Caching in Edge Computing. *Xia, X.*, +, *TPDS Feb. 2021 281-294*
- Recent Advances of Resource Allocation in Network Function Virtualization. *Yang, S.*, +, *TPDS Feb. 2021 295-314*
- Towards Minimizing Resource Usage With QoS Guarantee in Cloud Gaming. *Li, Y.*, +, *TPDS Feb. 2021 426-440*

Quantization (signal)

Canary: Decentralized Distributed Deep Learning Via Gradient Sketch and Partition in Multi-Interface Networks. *Zhou, Q.*, +, *TPDS April 2021 900-917*

Quantum cryptography

PQC Acceleration Using GPUs: FrodoKEM, NewHope, and Kyber. *Gupta, N.*, +, *TPDS March 2021 575-586*

Qubit

A Quantum Approach Towards the Adaptive Prediction of Cloud Workloads. *Singh, A.K.*, +, *TPDS Dec. 2021 2893-2905*

Query processing

Hone: Mitigating Stragglers in Distributed Stream Processing With Tuple Scheduling. *Li, W.*, +, *TPDS Aug. 2021 2021-2034*

A High-Throughput FPGA Accelerator for Short-Read Mapping of the Whole Human Genome. *Chen, Y.*, +, *TPDS June 2021 1465-1478*

A Scalable Platform for Distributed Object Tracking Across a Many-Camera Network. *Khochare, A.*, +, *TPDS June 2021 1479-1493*

Failure-Atomic Byte-Addressable R-tree for Persistent Memory. *Cho, S.*, +, *TPDS March 2021 601-614*

FedSCR: Structure-Based Communication Reduction for Federated Learning. *Wu, X.*, +, *TPDS July 2021 1565-1577*

Privacy-Preserving Similarity Search With Efficient Updates in Distributed Key-Value Stores. *Lin, W.*, +, *TPDS May 2021 1072-1084*

QShield: Protecting Outsourced Cloud Data Queries With Multi-User Access Control Based on SGX. *Chen, Y.*, +, *TPDS Feb. 2021 485-499*

SEIZE: Runtime Inspection for Parallel Dataflow Systems. *Li, Y.*, +, *TPDS April 2021 842-854*

Queueing analysis

Modeling and Analyzing Waiting Policies for Cloud-Enabled Schedulers. *Ambati, P.*, +, *TPDS Dec. 2021 3081-3100*

Multi-Queue Request Scheduling for Profit Maximization in IaaS Clouds. *Wang, S.*, +, *TPDS Nov. 2021 2838-2851*

Queueing theory

A Game-Based Approach for Cost-Aware Task Assignment With QoS Constraint in Collaborative Edge and Cloud Environments. *Long, S.*, +, *TPDS July 2021 1629-1640*

On Consortium Blockchain Consistency: A Queueing Network Model Approach. *Meng, T.*, +, *TPDS June 2021 1369-1382*

R**Radio networks**

Blockchain at the Edge: Performance of Resource-Constrained IoT Networks. *Misra, S.*, +, *TPDS Jan. 2021 174-183*

Random access memory

ETICA: Efficient Two-Level I/O Caching Architecture for Virtualized Platforms. *Ahmadian, S.*, +, *TPDS Oct. 2021 2415-2433*

Memory-Side Prefetching Scheme Incorporating Dynamic Page Mode in 3D-Stacked DRAM. *Rafique, M.M.*, +, *TPDS Nov. 2021 2734-2747*

Reachability analysis

Towards Efficient Large-Scale Interprocedural Program Static Analysis on Distributed Data-Parallel Computation. *Gu, R.*, +, *TPDS April 2021 867-883*

Real-time systems

3D Perception With Slanted Stixels on GPU. *Hernandez-Juarez, D.*, +, *TPDS Oct. 2021 2434-2447*

Group Reassignment for Dynamic Edge Partitioning. *Li, H.*, +, *TPDS Oct. 2021 2477-2490*

Online Scheduling Technique To Handle Data Velocity Changes in Stream Workflows. *Barika, M.*, +, *TPDS Aug. 2021 2115-2130*

Partitioning-Based Scheduling of OpenMP Task Systems With Tied Tasks. *Wang, Y.*, +, *TPDS June 2021 1322-1339*

PISTIS: An Event-Triggered Real-Time Byzantine-Resilient Protocol Suite. *Kozhaya, D.*, +, *TPDS Sept. 2021 2277-2290*

Tardiness Bounds for Sporadic Gang Tasks Under Preemptive Global EDF Scheduling. *Dong, Z.*, +, *TPDS Dec. 2021 2867-2879*

Timestamped State Sharing for Stream Analytics. *Zhao, Y.*, +, *TPDS Nov. 2021 2691-2704*

Reconfigurable architectures

An Elastic Task Scheduling Scheme on Coarse-Grained Reconfigurable Architectures. *Chen, L.*, +, *TPDS Dec. 2021 3066-3080*

Improving HW/SW Adaptability for Accelerating CNNs on FPGAs Through A Dynamic/Static Co-Reconfiguration Approach. *Gong, L.*, +, *TPDS July 2021 1854-1865*

Transformations of High-Level Synthesis Codes for High-Performance Computing. *de Fine Licht, J.*, +, *TPDS May 2021 1014-1029*

Recurrent neural networks

Efficient Methods for Mapping Neural Machine Translator on FPGAs. *Li, Q.*, +, *TPDS July 2021 1866-1877*

Rusty: Runtime Interference-Aware Predictive Monitoring for Modern Multi-Tenant Systems. *Masouros, D.*, +, *TPDS Jan. 2021 184-198*

Recycling

Proof of Federated Learning: A Novel Energy-Recycling Consensus Algorithm. *Qu, X.*, +, *TPDS Aug. 2021 2074-2085*

Relational databases

Optimised Lambda Architecture for Monitoring Scientific Infrastructure. *Suthakar, U.*, +, *TPDS June 2021 1395-1408*

Relays

MCFsyn: A Multi-Party Set Reconciliation Protocol With the Marked Cuckoo Filter. *Luo, L.*, +, *TPDS Nov. 2021 2705-2718*

Reliability

ETICA: Efficient Two-Level I/O Caching Architecture for Virtualized Platforms. *Ahmadian, S.*, +, *TPDS Oct. 2021 2415-2433*

Reliability engineering

ReliableBox: Secure and Verifiable Cloud Storage With Location-Aware Backup. *Jiang, T.*, +, *TPDS Dec. 2021 2996-3010*

Reproducibility of results

Guest Editorial: Special Section on SC19 Student Cluster Competition. *Parashar, M.*, *TPDS Nov. 2021 2606*

Identifying Degree and Sources of Non-Determinism in MPI Applications Via Graph Kernels. *Chapp, D.*, +, *TPDS Dec. 2021 2936-2952*

Transparency and Reproducibility Practice in Large-Scale Computational Science: A Preface to the Special Section. *Plale, B.*, +, *TPDS Nov. 2021 2607-2608*

Research and development

Guest Editorial: Special Section on SC19 Student Cluster Competition. *Parashar, M.*, *TPDS Nov. 2021 2606*

Transparency and Reproducibility Practice in Large-Scale Computational Science: A Preface to the Special Section. *Plale, B.*, +, *TPDS Nov. 2021 2607-2608*

Resource allocation

Hone: Mitigating Stragglers in Distributed Stream Processing With Tuple Scheduling. *Li, W.*, +, *TPDS Aug. 2021 2021-2034*

A Case for Pricing Bandwidth: Sharing Datacenter Networks With Cost Dominant Fairness. *Chen, L.*, +, *TPDS May 2021 1256-1269*

A Game-Based Approach for Cost-Aware Task Assignment With QoS Constraint in Collaborative Edge and Cloud Environments. *Long, S.*, +, *TPDS July 2021 1629-1640*

A Generic Stochastic Model for Resource Availability in Fog Computing Environments. *Battula, S.K.*, +, *TPDS April 2021 960-974*

Achieving Fine-Grained Flow Management Through Hybrid Rule Placement in SDNs. *Zhao, G.*, +, *TPDS March 2021 728-742*

Adaptive Preference-Aware Co-Location for Improving Resource Utilization of Power Constrained Datacenters. *Pang, P.*, +, *TPDS Feb. 2021 441-456*

Bi-Objective Optimization of Data-Parallel Applications on Heterogeneous HPC Platforms for Performance and Energy Through Workload Distribution. *Khaleghzadeh, H.*, +, *TPDS March 2021 543-560*

Design and Implementation of a Criticality- and Heterogeneity-Aware Runtime System for Task-Parallel Applications. *Han, M.*, +, *TPDS May 2021 1117-1132*

Distributed and Dynamic Service Placement in Pervasive Edge Computing Networks. *Ning, Z.*, +, *TPDS June 2021 1277-1292*

DL2: A Deep Learning-Driven Scheduler for Deep Learning Clusters. *Peng, Y.*, +, *TPDS Aug. 2021 1947-1960*

Dynamic Load Balancing in Parallel Execution of Cellular Automata. *Gior-dano, A.*, +, *TPDS Feb. 2021 470-484*

Hierarchical Multi-Agent Optimization for Resource Allocation in Cloud Computing. *Gao, X.*, +, *TPDS March 2021 692-707*

Learning Spatiotemporal Failure Dependencies for Resilient Edge Computing Services. *Aral, A.*, +, *TPDS July 2021 1578-1590*

Learning-Driven Interference-Aware Workload Parallelization for Streaming Applications in Heterogeneous Cluster. *Zhang, H.*, +, *TPDS Jan. 2021 1-15*

Recent Advances of Resource Allocation in Network Function Virtualization. *Yang, S.*, +, *TPDS Feb. 2021 295-314*

Rusty: Runtime Interference-Aware Predictive Monitoring for Modern Multi-Tenant Systems. *Masouros, D.*, +, *TPDS Jan. 2021 184-198*

Towards Minimizing Resource Usage With QoS Guarantee in Cloud Gaming. *Li, Y.*, +, *TPDS Feb. 2021 426-440*

True Load Balancing for Matricized Tensor Khatri-Rao Product. *Abu-baker, N.*, +, *TPDS Aug. 2021 1974-1986*

Resource management

ETICA: Efficient Two-Level I/O Caching Architecture for Virtualized Platforms. *Ahmadian, S.*, +, *TPDS Oct. 2021 2415-2433*

FRATO: Fog Resource Based Adaptive Task Offloading for Delay-Minimizing IoT Service Provisioning. *Tran-Dang, H.*, +, *TPDS Oct. 2021 2491-2508*

Joint SFC Deployment and Resource Management in Heterogeneous Edge for Latency Minimization. *Liu, Y.*, +, *TPDS Aug. 2021 2131-2143*

Modeling and Analyzing Waiting Policies for Cloud-Enabled Schedulers. *Ambati, P.*, +, *TPDS Dec. 2021 3081-3100*

Multi-Queue Request Scheduling for Profit Maximization in IaaS Clouds. *Wang, S.*, +, *TPDS Nov. 2021 2838-2851*

Optimizing Resource Allocation for Data-Parallel Jobs Via GCN-Based Prediction. *Hu, Z.*, +, *TPDS Sept. 2021 2188-2201*

Structured Allocation-Based Consistent Hashing With Improved Balancing for Cloud Infrastructure. *Nakatani, Y.*, *TPDS Sept. 2021 2248-2261*

The Case for Cross-Component Power Coordination on Power Bounded Systems. *Ge, R.*, +, *TPDS Oct. 2021 2464-2476*

Robots

Scalable Energy Games Solvers on GPUs. *Formisano, A.*, +, *TPDS Dec. 2021 2970-2982*

Routing

Coflow Scheduling in Data Centers: Routing and Bandwidth Allocation. *Shi, L.*, +, *TPDS Nov. 2021 2661-2675*

Joint SFC Deployment and Resource Management in Heterogeneous Edge for Latency Minimization. *Liu, Y.*, +, *TPDS Aug. 2021 2131-2143*

Routing protocols

Accelerating Federated Learning Over Reliability-Agnostic Clients in Mobile Edge Computing Systems. *Wu, W.*, +, *TPDS July 2021 1539-1551*

High-Performance Routing With Multipathing and Path Diversity in Ethernet and HPC Networks. *Besta, M.*, +, *TPDS April 2021 943-959*

Runtime

ARENA: Asynchronous Reconfigurable Accelerator Ring to Enable Data-Centric Parallel Computing. *Tan, C.*, +, *TPDS Dec. 2021 2880-2892*

Critique of “Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility” by SCC Team From ETH Zurich. *Burger, M.*, +, *TPDS Nov. 2021 2627-2630*

Critique of “Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility” by SCC Team From Peking University. *Cheng, Y.*, +, *TPDS Nov. 2021 2643-2645*

Critique of “Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility” by SCC Team From University of Warsaw. *Masiak, M.*, +, *TPDS Nov. 2021 2635-2638*

Critique of “Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility” by SCC Team From University of Washington. *Liu, D.*, +, *TPDS Nov. 2021 2639-2642*

Identifying Degree and Sources of Non-Determinism in MPI Applications Via Graph Kernels. *Chapp, D.*, +, *TPDS Dec. 2021 2936-2952*

Online Scheduling Technique To Handle Data Velocity Changes in Stream Workflows. *Barika, M.*, +, *TPDS Aug. 2021 2115-2130*

WindFlow: High-Speed Continuous Stream Processing With Parallel Building Blocks. *Mencagli, G.*, +, *TPDS Nov. 2021 2748-2763*

S

Sampling methods

Auditing Cache Data Integrity in the Edge Computing Environment. *Li, B.*, +, *TPDS May 2021 1210-1223*

Scalability

Critique of “Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility” by SCC Team From National Tsing Hua University. *Sun, W.*, +, *TPDS Nov. 2021 2623-2626*

Critique of “Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility” by SCC Team From Peking University. *Cheng, Y.*, +, *TPDS Nov. 2021 2643-2645*

Critique of “Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility” by SCC Team From University of Warsaw. *Masiak, M.*, +, *TPDS Nov. 2021 2635-2638*

Critique of “Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility” by SCC Team From University of Washington. *Liu, D.*, +, *TPDS Nov. 2021 2639-2642*

LightChain: Scalable DHT-Based Blockchain. *Hassanzadeh-Nazarabadi, Y.*, +, *TPDS Oct. 2021 2582-2593*

Overlapping Communication With Computation in Parameter Server for Scalable DL Training. *Wang, S.*, +, *TPDS Sept. 2021 2144-2159*

PISTIS: An Event-Triggered Real-Time Byzantine-Resilient Protocol Suite. *Kozhaya, D.*, +, *TPDS Sept. 2021 2277-2290*

Scheduling

Hone: Mitigating Stragglers in Distributed Stream Processing With Tuple Scheduling. *Li, W.*, +, *TPDS Aug. 2021 2021-2034*

A Thread Level SLO-Aware I/O Framework for Embedded Virtualization. *Gong, X.*, +, *TPDS March 2021 500-513*

Accelerating End-to-End Deep Learning Workflow With Codesign of Data Preprocessing and Scheduling. *Cheng, Y.*, +, *TPDS July 2021 1802-1814*

Accelerating Large-Scale Prioritized Graph Computations by Hotness Balanced Partition. *Gong, S.*, +, *TPDS April 2021 746-759*

Coflow Scheduling in Data Centers: Routing and Bandwidth Allocation. *Shi, L.*, +, *TPDS Nov. 2021 2661-2675*

Collaborative Heterogeneity-Aware OS Scheduler for Asymmetric Multi-core Processors. *Yu, T.*, +, *TPDS May 2021 1224-1237*

DeepSlicing: Collaborative and Adaptive CNN Inference With Low Latency. *Zhang, S.*, +, *TPDS Sept. 2021 2175-2187*

Design and Implementation of a Criticality- and Heterogeneity-Aware Runtime System for Task-Parallel Applications. *Han, M.*, +, *TPDS May 2021 1117-1132*

DL2: A Deep Learning-Driven Scheduler for Deep Learning Clusters. *Peng, Y.*, +, *TPDS Aug. 2021 1947-1960*

Elastic Scheduling for Microservice Applications in Clouds. *Wang, S.*, +, *TPDS Jan. 2021 98-115*

Joint Task Scheduling and Containerizing for Efficient Edge Computing. *Zhang, J.*, +, *TPDS Aug. 2021 2086-2100*

Learning Spatiotemporal Failure Dependencies for Resilient Edge Computing Services. *Aral, A.*, +, *TPDS July 2021 1578-1590*

Multi-Agent Imitation Learning for Pervasive Edge Computing: A Decentralized Computation Offloading Algorithm. *Wang, X.*, +, *TPDS Feb. 2021 411-425*

Multi-Hop Multi-Task Partial Computation Offloading in Collaborative Edge Computing. *Sahni, Y.*, +, *TPDS May 2021 1133-1145*

Partitioning-Based Scheduling of OpenMP Task Systems With Tied Tasks. *Wang, Y.*, +, *TPDS June 2021 1322-1339*

Tardiness Bounds for Sporadic Gang Tasks Under Preemptive Global EDF Scheduling. *Dong, Z.*, +, *TPDS Dec. 2021 2867-2879*

Thermal Prediction for Efficient Energy Management of Clouds Using Machine Learning. *Ilager, S.*, +, *TPDS May 2021 1044-1056*

Towards Efficient Scheduling of Federated Mobile Devices Under Computational and Statistical Heterogeneity. *Wang, C.*, +, *TPDS Feb. 2021 394-410*

Scheduling algorithms

IPPTS: An Efficient Algorithm for Scientific Workflow Scheduling in Heterogeneous Computing Systems. *Djigal, H.*, +, *TPDS May 2021 1057-1071*

Multi-Queue Request Scheduling for Profit Maximization in IaaS Clouds. *Wang, S.*, +, *TPDS Nov. 2021 2838-2851*

Search problems

A Distributed Framework for EA-Based NAS. *Ye, Q.*, +, *TPDS July 2021 1753-1764*

A Runtime and Non-Intrusive Approach to Optimize EDP by Tuning Threads and CPU Frequency for OpenMP Applications. *Schwarzrock, J.*, +, *TPDS July 2021 1713-1724*

Efficient Methods for Mapping Neural Machine Translator on FPGAs. *Li, Q.*, +, *TPDS July 2021 1866-1877*

Security

LightChain: Scalable DHT-Based Blockchain. *Hassanzadeh-Nazarabadi, Y.*, +, *TPDS Oct. 2021 2582-2593*

ReliableBox: Secure and Verifiable Cloud Storage With Location-Aware Backup. *Jiang, T.*, +, *TPDS Dec. 2021 2996-3010*

Security of data

Auditing Cache Data Integrity in the Edge Computing Environment. *Li, B.*, +, *TPDS May 2021 1210-1223*

Biscotti: A Blockchain System for Private and Secure Federated Learning. *Shayan, M.*, +, *TPDS July 2021 1513-1525*

Semantics

3D Perception With Slanted Stixels on GPU. *Hernandez-Juarez, D.*, +, *TPDS Oct. 2021 2434-2447*

Logically Parallel Communication for Fast MPI+Threads Applications. *Zambre, R.*, +, *TPDS Dec. 2021 3038-3052*

Timestamped State Sharing for Stream Analytics. *Zhao, Y.*, +, *TPDS Nov. 2021 2691-2704*

WindFlow: High-Speed Continuous Stream Processing With Parallel Building Blocks. *Mencagli, G.*, +, *TPDS Nov. 2021 2748-2763*

Sensitivity

Accurate Differentially Private Deep Learning on the Edge. *Han, R.*, +, *TPDS Sept. 2021 2231-2247*

Sequential analysis

Parallel Fine-Grained Comparison of Long DNA Sequences in Homogeneous and Heterogeneous GPU Platforms With Pruning. *Figueiredo, M.*, +, *TPDS Dec. 2021 3053-3065*

Servers

Octans: Optimal Placement of Service Function Chains in Many-Core Systems. *Yu, H.*, +, *TPDS Sept. 2021 2202-2215*

Accurate Differentially Private Deep Learning on the Edge. *Han, R.*, +, *TPDS Sept. 2021 2231-2247*

An Efficient Parallel Secure Machine Learning Framework on GPUs. *Zhang, F.*, +, *TPDS Sept. 2021 2262-2276*

Architectural Adaptation and Performance-Energy Optimization for CFD Application on AMD EPYC Rome. *Szustak, L.*, +, *TPDS Dec. 2021 2852-2866*

FRATO: Fog Resource Based Adaptive Task Offloading for Delay-Minimizing IoT Service Provisioning. *Tran-Dang, H.*, +, *TPDS Oct. 2021 2491-2508*

Joint SFC Deployment and Resource Management in Heterogeneous Edge for Latency Minimization. *Liu, Y.*, +, *TPDS Aug. 2021 2131-2143*

MCFSyn: A Multi-Party Set Reconciliation Protocol With the Marked Cuckoo Filter. *Luo, L.*, +, *TPDS Nov. 2021 2705-2718*

Multi-Queue Request Scheduling for Profit Maximization in IaaS Clouds. *Wang, S.*, +, *TPDS Nov. 2021 2838-2851*

Overlapping Communication With Computation in Parameter Server for Scalable DL Training. *Wang, S.*, +, *TPDS Sept. 2021 2144-2159*

OWebSync: Seamless Synchronization of Distributed Web Clients. *Jannes, K.*, +, *TPDS Sept. 2021 2338-2351*

ReliableBox: Secure and Verifiable Cloud Storage With Location-Aware Backup. *Jiang, T.*, +, *TPDS Dec. 2021 2996-3010*

VeriML: Enabling Integrity Assurances and Fair Payments for Machine Learning as a Service. *Zhao, L.*, +, *TPDS Oct. 2021 2524-2540*

Service function chaining

Octans: Optimal Placement of Service Function Chains in Many-Core Systems. *Yu, H.*, +, *TPDS Sept. 2021 2202-2215*

Joint SFC Deployment and Resource Management in Heterogeneous Edge for Latency Minimization. *Liu, Y.*, +, *TPDS Aug. 2021 2131-2143*

Service-oriented architecture

Large-Scale Analysis of Docker Images and Performance Implications for Container Storage Systems. *Zhao, N.*, +, *TPDS April 2021 918-930*

Set theory

Boosting Parallel Influence-Maximization Kernels for Undirected Networks With Fusing and Vectorization. *Gokturk, G.*, +, *TPDS May 2021 1001-1013*

Shared memory systems

A Machine-Learning-Based Framework for Productive Locality Exploitation. *Kayraklioglu, E.*, +, *TPDS June 2021 1409-1424*

A Runtime and Non-Intrusive Approach to Optimize EDP by Tuning Threads and CPU Frequency for OpenMP Applications. *Schwarzrock, J.*, +, *TPDS July 2021 1713-1724*

Energy-Efficient Hardware-Accelerated Synchronization for Shared-L1-Memory Multiprocessor Clusters. *Glaser, F.*, +, *TPDS March 2021 633-648*

High-Performance Computing Implementations of Agent-Based Economic Models for Realizing 1:1 Scale Simulations of Large Economies. *Gill, A.*, +, *TPDS Aug. 2021 2101-2114*

Multi-GPU Design and Performance Evaluation of Homomorphic Encryption on GPU Clusters. *Al Badawi, A.*, +, *TPDS Feb. 2021 379-391*

PaKman: A Scalable Algorithm for Generating Genomic Contigs on Distributed Memory Machines. *Ghosh, P.*, +, *TPDS May 2021 1191-1209*

Resettable Encoded Vector Clock for Causality Analysis With an Application to Dynamic Race Detection. *Pozzetti, T.*, +, *TPDS April 2021 772-785*

Signal processing algorithms

Decentralized Dual Proximal Gradient Algorithms for Non-Smooth Constrained Composite Optimization Problems. *Li, H.*, +, *TPDS Oct. 2021 2594-2605*

Simulated annealing

An Optimized Weighted Average Makespan in Fault-Tolerant Heterogeneous MPSoCs. *Youness, H.*, +, *TPDS Aug. 2021 1933-1946*

Simulation

Fast, Accurate Processor Evaluation Through Heterogeneous, Sample-Based Benchmarking. *Prieto, P.*, +, *TPDS Dec. 2021 2983-2995*

Joint SFC Deployment and Resource Management in Heterogeneous Edge for Latency Minimization. *Liu, Y.*, +, *TPDS Aug. 2021 2131-2143*

Smart phones

Systematically Landing Machine Learning onto Market-Scale Mobile Malware Detection. *Gong, L.*, +, *TPDS July 2021 1615-1628*

Smart power grids

CPDE: A Methodology for the Transparent Distribution of Centralized Smart Grid Programs. *Nguyen, T.T.Q.*, +, *TPDS Feb. 2021 342-354*

Social factors

Self-Stabilizing Population Protocols With Global Knowledge. *Sudo, Y.*, +, *TPDS Dec. 2021 3011-3023*

Social networking (online)

gIM: GPU Accelerated RIS-Based Influence Maximization Algorithm. *Shahrouz, S.*, +, *TPDS Oct. 2021 2386-2399*

Group Reassignment for Dynamic Edge Partitioning. *Li, H.*, +, *TPDS Oct. 2021 2477-2490*

Sociology

Retargeting Tensor Accelerators for Epistasis Detection. *Nobre, R.*, +, *TPDS Sept. 2021 2160-2174*

Software

Critique of "Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility" by SCC Team From ETH Zurich. *Burger, M.*, +, *TPDS Nov. 2021 2627-2630*

Critique of "Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility" by SCC Team From University of Washington. *Liu, D.*, +, *TPDS Nov. 2021 2639-2642*

Software algorithms

Towards Efficient Distributed Subgraph Enumeration Via Backtracking-Based Framework. *Wang, Z., +, TPDS Dec. 2021 2953-2969*

Software architecture

The Deep Learning Compiler: A Comprehensive Survey. *Li, M., +, TPDS March 2021 708-727*

Software defined networking

Achieving Fine-Grained Flow Management Through Hybrid Rule Placement in SDNs. *Zhao, G., +, TPDS March 2021 728-742*

Recent Advances of Resource Allocation in Network Function Virtualization. *Yang, S., +, TPDS Feb. 2021 295-314*

Sova: A Software-Defined Autonomic Framework for Virtual Network Allocations. *Ye, Z., +, TPDS Jan. 2021 116-130*

Software engineering

Identifying Degree and Sources of Non-Determinism in MPI Applications Via Graph Kernels. *Chapp, D., +, TPDS Dec. 2021 2936-2952*

Towards Efficient Large-Scale Interprocedural Program Static Analysis on Distributed Data-Parallel Computation. *Gu, R., +, TPDS April 2021 867-883*

Software fault tolerance

FT-CNN: Algorithm-Based Fault Tolerance for Convolutional Neural Networks. *Zhao, K., +, TPDS July 2021 1677-1689*

Realizing Best Checkpointing Control in Computing Systems. *Sigdel, P., +, TPDS Feb. 2021 315-329*

Software libraries

Subutai: Speeding Up Legacy Parallel Applications Through Data Synchronization. *Cataldo, R., +, TPDS May 2021 1102-1116*

Software packages

Large-Scale Analysis of Docker Images and Performance Implications for Container Storage Systems. *Zhao, N., +, TPDS April 2021 918-930*

Software reliability

Design and Evaluation of a Risk-Aware Failure Identification Scheme for Improved RAS in Erasure-Coded Data Centers. *Huang, W., +, TPDS Jan. 2021 16-30*

Solar cells

A Hybrid Fuzzy Convolutional Neural Network Based Mechanism for Photovoltaic Cell Defect Detection With Electroluminescence Images. *Ge, C., +, TPDS July 2021 1653-1664*

Solid modeling

Critique of “Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility” by SCC Team From Peking University. *Cheng, Y., +, TPDS Nov. 2021 2643-2645*

Critique of “Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility” by SCC Team From Tsinghua University. *Zhang, C., +, TPDS Nov. 2021 2631-2634*

Solids

Critique of “Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility” by SCC Team From Peking University. *Cheng, Y., +, TPDS Nov. 2021 2643-2645*

Critique of “Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility” by SCC Team From University of Washington. *Liu, D., +, TPDS Nov. 2021 2639-2642*

Sorting

Hierarchical Multi-Agent Optimization for Resource Allocation in Cloud Computing. *Gao, X., +, TPDS March 2021 692-707*

Homomorphic Sorting With Better Scalability. *Cetin, G.S., +, TPDS April 2021 760-771*

Parallelization and Optimization of NSGA-II on Sunway TaihuLight System. *Liu, X., +, TPDS April 2021 975-987*

Source code (software)

PredCom: A Predictive Approach to Collecting Approximated Communication Traces. *Miwa, S., +, TPDS Jan. 2021 45-58*

Subutai: Speeding Up Legacy Parallel Applications Through Data Synchronization. *Cataldo, R., +, TPDS May 2021 1102-1116*

Sparks

An Incremental Iterative Acceleration Architecture in Distributed Heterogeneous Environments With GPUs for Deep Learning. *Zhang, X., +, TPDS Nov. 2021 2823-2837*

Optimizing Resource Allocation for Data-Parallel Jobs Via GCN-Based Prediction. *Hu, Z., +, TPDS Sept. 2021 2188-2201*

Timestamped State Sharing for Stream Analytics. *Zhao, Y., +, TPDS Nov. 2021 2691-2704*

Sparse matrices

A Split Execution Model for SpTRSV. *Ahmad, N., +, TPDS Nov. 2021 2809-2822*

Adaptive SpMV/SpMSPV on GPUs for Input Vectors of Varied Sparsity. *Li, M., +, TPDS July 2021 1842-1853*

BALS: Blocked Alternating Least Squares for Parallel Sparse Matrix Factorization on GPUs. *Chen, J., +, TPDS Sept. 2021 2291-2302*

CASpMV: A Customized and Accelerative SpMV Framework for the Sunway TaihuLight. *Xiao, G., +, TPDS Jan. 2021 131-146*

Partitioning Models for General Medium-Grain Parallel Sparse Tensor Decomposition. *Karsavuran, M.O., +, TPDS Jan. 2021 147-159*

SGDS\\$_Tucker: A Novel Stochastic Optimization Strategy for Parallel Sparse Tucker Decomposition. *Li, H., +, TPDS July 2021 1828-1841*

Spartan: A Sparsity-Adaptive Framework to Accelerate Deep Neural Network Training on GPUs. *Dong, S., +, TPDS Oct. 2021 2448-2463*

True Load Balancing for Matricized Tensor Times Khatri-Rao Product. *Abubaker, N., +, TPDS Aug. 2021 1974-1986*

YuenyeungSpTRSV: A Thread-Level and Warp-Level Fusion Synchronization-Free Sparse Triangular Solve. *Zhang, F., +, TPDS Sept. 2021 2321-2337*

Special issues and sections

Guest Editorial. *Balaji, P., +, TPDS July 2021 1511-1512*

Guest Editorial: Special Section on SC19 Student Cluster Competition. *Parashar, M., TPDS Nov. 2021 2606*

Transparency and Reproducibility Practice in Large-Scale Computational Science: A Preface to the Special Section. *Plale, B., +, TPDS Nov. 2021 2607-2608*

Specification languages

Reversible CSP Computations. *Galindo, C., +, TPDS June 2021 1425-1436*

Speech recognition

Parallel Blockwise Knowledge Distillation for Deep Neural Network Compression. *Blakeney, C., +, TPDS July 2021 1765-1776*

Spinning

Virtualization Overhead of Multithreading in X86 State-of-the-Art & Remaining Challenges. *Schildermans, S., +, TPDS Oct. 2021 2557-2570*

SQL

QShield: Protecting Outsourced Cloud Data Queries With Multi-User Access Control Based on SGX. *Chen, Y., +, TPDS Feb. 2021 485-499*

Standards

Analysis of GPU Data Access Patterns on Complex Geometries for the D3Q19 Lattice Boltzmann Algorithm. *Herschlag, G., +, TPDS Oct. 2021 2400-2414*

Critique of “Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility” by SCC Team From University of Warsaw. *Masiak, M., +, TPDS Nov. 2021 2635-2638*

Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility. *Shi, J., +, TPDS Nov. 2021 2609-2622*

Statistical analysis

Analysis of Global and Local Synchronization in Parallel Computing. *Cicirelli, F., +, TPDS May 2021 988-1000*

CASpMV: A Customized and Accelerative SpMV Framework for the Sunway TaihuLight. *Xiao, G., +, TPDS Jan. 2021 131-146*

Statistics

Elastic Scheduling for Microservice Applications in Clouds. *Wang, S., +, TPDS Jan. 2021 98-115*

Retargeting Tensor Accelerators for Epistasis Detection. *Nobre, R., +, TPDS Sept. 2021 2160-2174*

Self-Stabilizing Population Protocols With Global Knowledge. *Sudo, Y., +, TPDS Dec. 2021 3011-3023*

Stochastic games

Multi-Agent Imitation Learning for Pervasive Edge Computing: A Decentralized Computation Offloading Algorithm. *Wang, X., +, TPDS Feb. 2021 411-425*

Stochastic processes

- Distributed and Dynamic Service Placement in Pervasive Edge Computing Networks. *Ning, Z.*, +, *TPDS June 2021 1277-1292*
- MG-WFBP: Merging Gradients Wisely for Efficient Communication in Distributed Deep Learning. *Shi, S.*, +, *TPDS Aug. 2021 1903-1917*
- On Consortium Blockchain Consistency: A Queueing Network Model Approach. *Meng, T.*, +, *TPDS June 2021 1369-1382*
- Profiles of Upcoming HPC Applications and Their Impact on Reservation Strategies. *Gainaru, A.*, +, *TPDS May 2021 1178-1190*
- SGDS_Tucker: A Novel Stochastic Optimization Strategy for Parallel Sparse Tucker Decomposition. *Li, H.*, +, *TPDS July 2021 1828-1841*
- Why Dataset Properties Bound the Scalability of Parallel Machine Learning Training Algorithms. *Cheng, D.*, +, *TPDS July 2021 1702-1712*

Stochastic programming

- Breaking (Global) Barriers in Parallel Stochastic Optimization With Wait-Avoiding Group Averaging. *Li, S.*, +, *TPDS July 2021 1725-1739*

Storage management

- Achieving Probabilistic Atomicity With Well-Bounded Staleness and Low Read Latency in Distributed Datastores. *Ouyang, L.*, +, *TPDS April 2021 815-829*
- Design and Evaluation of a Risk-Aware Failure Identification Scheme for Improved RAS in Erasure-Coded Data Centers. *Huang, W.*, +, *TPDS Jan. 2021 16-30*
- Investigating the Adoption of Hybrid Encrypted Cloud Data Deduplication With Game Theory. *Liang, X.*, +, *TPDS March 2021 587-600*
- Optimistic Causal Consistency for Geo-Replicated Key-Value Stores. *Spirovska, K.*, +, *TPDS March 2021 527-542*

Streaming media

- A Unified Framework for Flexible Playback Latency Control in Live Video Streaming. *Zhang, G.*, +, *TPDS Dec. 2021 3024-3037*

Structured Query Language

- Fine-Grained Multi-Query Stream Processing on Integrated Architectures. *Zhang, F.*, +, *TPDS Sept. 2021 2303-2320*

Supercomputers

- Optimizing the LINPACK Algorithm for Large-Scale PCIe-Based CPU-GPU Heterogeneous Systems. *Tan, G.*, +, *TPDS Sept. 2021 2367-2380*

Supercomputing

- Logically Parallel Communication for Fast MPI+Threads Applications. *Zambre, R.*, +, *TPDS Dec. 2021 3038-3052*

Surfaces

- Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility. *Shi, J.*, +, *TPDS Nov. 2021 2609-2622*

Sustainable development

- e-PoS: Making Proof-of-Stake Decentralized and Fair. *Saad, M.*, +, *TPDS Aug. 2021 1961-1973*

Switches

- RENDa: Resource and Network Aware Data Placement Algorithm for Periodic Workloads in Cloud. *Thakkar, H.K.*, +, *TPDS Dec. 2021 2906-2920*

Synchronization

- A Fault-Tolerant Distributed Framework for Asynchronous Iterative Computations. *Zhou, T.*, +, *TPDS Aug. 2021 2062-2073*
- Analysis of Global and Local Synchronization in Parallel Computing. *Cicirelli, F.*, +, *TPDS May 2021 988-1000*
- Blockchain at the Edge: Performance of Resource-Constrained IoT Networks. *Misra, S.*, +, *TPDS Jan. 2021 174-183*
- Canary: Decentralized Distributed Deep Learning Via Gradient Sketch and Partition in Multi-Interface Networks. *Zhou, Q.*, +, *TPDS April 2021 900-917*
- DeepSlicing: Collaborative and Adaptive CNN Inference With Low Latency. *Zhang, S.*, +, *TPDS Sept. 2021 2175-2187*
- Energy-Efficient Hardware-Accelerated Synchronization for Shared-L1-Memory Multiprocessor Clusters. *Glaser, F.*, +, *TPDS March 2021 633-648*
- Overlapping Communication With Computation in Parameter Server for Scalable DL Training. *Wang, S.*, +, *TPDS Sept. 2021 2144-2159*
- OWebSync: Seamless Synchronization of Distributed Web Clients. *Jannes, K.*, +, *TPDS Sept. 2021 2338-2351*

Petrel: Heterogeneity-Aware Distributed Deep Learning Via Hybrid Synchronization. *Zhou, Q.*, +, *TPDS May 2021 1030-1043*

Subutai: Speeding Up Legacy Parallel Applications Through Data Synchronization. *Cataldo, R.*, +, *TPDS May 2021 1102-1116*

Virtualization Overhead of Multithreading in X86 State-of-the-Art & Remaining Challenges. *Schildermans, S.*, +, *TPDS Oct. 2021 2557-2570*

YuenyeungSpTRSV: A Thread-Level and Warp-Level Fusion Synchronization-Free Sparse Triangular Solve. *Zhang, F.*, +, *TPDS Sept. 2021 2321-2337*

System recovery

- Cryptomining Detection in Container Clouds Using System Calls and Explainable Machine Learning. *Karn, R.R.*, +, *TPDS March 2021 674-691*
- Realizing Best Checkpointing Control in Computing Systems. *Sigdel, P.*, +, *TPDS Feb. 2021 315-329*

System-on-chip

- An Optimized Weighted Average Makespan in Fault-Tolerant Heterogeneous MPSoCs. *Youness, H.*, +, *TPDS Aug. 2021 1933-1946*

Systems architecture

- A Survey of System Architectures and Techniques for FPGA Virtualization. *Quraishi, M.H.*, +, *TPDS Sept. 2021 2216-2230*

T**Taguchi methods**

- Hierarchical Multi-Agent Optimization for Resource Allocation in Cloud Computing. *Gao, X.*, +, *TPDS March 2021 692-707*

Task analysis

- Accelerating the Bron-Kerbosch Algorithm for Maximal Clique Enumeration Using GPUs. *Yi-Wen, W.*, +, *TPDS Sept. 2021 2352-2366*
- An Efficient Parallel Secure Machine Learning Framework on GPUs. *Zhang, F.*, +, *TPDS Sept. 2021 2262-2276*
- An Elastic Task Scheduling Scheme on Coarse-Grained Reconfigurable Architectures. *Chen, L.*, +, *TPDS Dec. 2021 3066-3080*
- An Incremental Iterative Acceleration Architecture in Distributed Heterogeneous Environments With GPUs for Deep Learning. *Zhang, X.*, +, *TPDS Nov. 2021 2823-2837*
- ARENA: Asynchronous Reconfigurable Accelerator Ring to Enable Data-Centric Parallel Computing. *Tan, C.*, +, *TPDS Dec. 2021 2880-2892*
- Critique of "Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility" by SCC Team From University of Warsaw. *Masiak, M.*, +, *TPDS Nov. 2021 2635-2638*
- DeepSlicing: Collaborative and Adaptive CNN Inference With Low Latency. *Zhang, S.*, +, *TPDS Sept. 2021 2175-2187*
- Fast, Accurate Processor Evaluation Through Heterogeneous, Sample-Based Benchmarking. *Prieto, P.*, +, *TPDS Dec. 2021 2983-2995*
- FRATO: Fog Resource Based Adaptive Task Offloading for Delay-Minimizing IoT Service Provisioning. *Tran-Dang, H.*, +, *TPDS Oct. 2021 2491-2508*
- Group Reassignment for Dynamic Edge Partitioning. *Li, H.*, +, *TPDS Oct. 2021 2477-2490*
- IPPTS: An Efficient Algorithm for Scientific Workflow Scheduling in Heterogeneous Computing Systems. *Djigal, H.*, +, *TPDS May 2021 1057-1071*
- Multi-Queue Request Scheduling for Profit Maximization in IaaS Clouds. *Wang, S.*, +, *TPDS Nov. 2021 2838-2851*
- Offloading Tasks With Dependency and Service Caching in Mobile Edge Computing. *Zhao, G.*, +, *TPDS Nov. 2021 2777-2792*
- Optimizing Resource Allocation for Data-Parallel Jobs Via GCN-Based Prediction. *Hu, Z.*, +, *TPDS Sept. 2021 2188-2201*
- Tardiness Bounds for Sporadic Gang Tasks Under Preemptive Global EDF Scheduling. *Dong, Z.*, +, *TPDS Dec. 2021 2867-2879*
- VeriML: Enabling Integrity Assurances and Fair Payments for Machine Learning as a Service. *Zhao, L.*, +, *TPDS Oct. 2021 2524-2540*

Telecommunication computing

- Fast Adaptive Task Offloading in Edge Computing Based on Meta Reinforcement Learning. *Wang, J.*, +, *TPDS Jan. 2021 242-253*
- On the Effective Parallelization and Near-Optimal Deployment of Service Function Chains. *Luo, J.*, +, *TPDS May 2021 1238-1255*

Telecommunication network management

Achieving Fine-Grained Flow Management Through Hybrid Rule Placement in SDNs. *Zhao, G., +, TPDS March 2021 728-742*

Telecommunication network reliability

High-Performance Routing With Multipathing and Path Diversity in Ethernet and HPC Networks. *Besta, M., +, TPDS April 2021 943-959*

Learning Spatiotemporal Failure Dependencies for Resilient Edge Computing Services. *Aral, A., +, TPDS July 2021 1578-1590*

Reliability and Confidentiality Co-Verification for Parallel Applications in Distributed Systems. *Xie, G., +, TPDS June 2021 1353-1368*

Telecommunication network routing

Learning Spatiotemporal Failure Dependencies for Resilient Edge Computing Services. *Aral, A., +, TPDS July 2021 1578-1590*

Telecommunication network topology

A Scalable Stateful Approach for Virtual Security Functions Orchestration. *Moradi, N., +, TPDS June 2021 1383-1394*

High-Performance Routing With Multipathing and Path Diversity in Ethernet and HPC Networks. *Besta, M., +, TPDS April 2021 943-959*

Learning Spatiotemporal Failure Dependencies for Resilient Edge Computing Services. *Aral, A., +, TPDS July 2021 1578-1590*

On the Effective Parallelization and Near-Optimal Deployment of Service Function Chains. *Luo, J., +, TPDS May 2021 1238-1255*

Telecommunication scheduling

Minimizing Coflow Completion Time in Optical Circuit Switched Networks. *Zhang, T., +, TPDS Feb. 2021 457-469*

Network-Aware Locality Scheduling for Distributed Data Operators in Data Centers. *Cheng, L., +, TPDS June 2021 1494-1510*

Telecommunication traffic

A Case for Pricing Bandwidth: Sharing Datacenter Networks With Cost Dominant Fairness. *Chen, L., +, TPDS May 2021 1256-1269*

Design and Evaluation of a Risk-Aware Failure Identification Scheme for Improved RAS in Erasure-Coded Data Centers. *Huang, W., +, TPDS Jan. 2021 16-30*

Fast Adaptive Task Offloading in Edge Computing Based on Meta Reinforcement Learning. *Wang, J., +, TPDS Jan. 2021 242-253*

Minimizing Coflow Completion Time in Optical Circuit Switched Networks. *Zhang, T., +, TPDS Feb. 2021 457-469*

Multi-Agent Imitation Learning for Pervasive Edge Computing: A Decentralized Computation Offloading Algorithm. *Wang, X., +, TPDS Feb. 2021 411-425*

Network-Aware Locality Scheduling for Distributed Data Operators in Data Centers. *Cheng, L., +, TPDS June 2021 1494-1510*

On the Effective Parallelization and Near-Optimal Deployment of Service Function Chains. *Luo, J., +, TPDS May 2021 1238-1255*

Tensors

Accelerating Binarized Neural Networks via Bit-Tensor-Cores in Turing GPUs. *Li, A., +, TPDS July 2021 1878-1891*

GPU Tensor Cores for Fast Arithmetic Reductions. *Navarro, C.A., +, TPDS Jan. 2021 72-84*

Partitioning Models for General Medium-Grain Parallel Sparse Tensor Decomposition. *Karsavuran, M.O., +, TPDS Jan. 2021 147-159*

Retargeting Tensor Accelerators for Epistasis Detection. *Nobre, R., +, TPDS Sept. 2021 2160-2174*

SGD \backslash \$_Tucker: A Novel Stochastic Optimization Strategy for Parallel Sparse Tucker Decomposition. *Li, H., +, TPDS July 2021 1828-1841*

True Load Balancing for Matricized Tensor Times Khatri-Rao Product. *Abubaker, N., +, TPDS Aug. 2021 1974-1986*

Text analysis

An Automatic Synthesizer of Advising Tools for High Performance Computing. *Guan, H., +, TPDS Feb. 2021 330-341*

Three-dimensional displays

Memory-Side Prefetching Scheme Incorporating Dynamic Page Mode in 3D-Stacked DRAM. *Rafique, M.M., +, TPDS Nov. 2021 2734-2747*

Through-silicon vias

Memory-Side Prefetching Scheme Incorporating Dynamic Page Mode in 3D-Stacked DRAM. *Rafique, M.M., +, TPDS Nov. 2021 2734-2747*

Throughput

Octans: Optimal Placement of Service Function Chains in Many-Core Systems. *Yu, H., +, TPDS Sept. 2021 2202-2215*

A Unified Framework for Flexible Playback Latency Control in Live Video Streaming. *Zhang, G., +, TPDS Dec. 2021 3024-3037*

Fine-Grained Multi-Query Stream Processing on Integrated Architectures. *Zhang, F., +, TPDS Sept. 2021 2303-2320*

Retargeting Tensor Accelerators for Epistasis Detection. *Nobre, R., +, TPDS Sept. 2021 2160-2174*

Timestamped State Sharing for Stream Analytics. *Zhao, Y., +, TPDS Nov. 2021 2691-2704*

WindFlow: High-Speed Continuous Stream Processing With Parallel Building Blocks. *Mencagli, G., +, TPDS Nov. 2021 2748-2763*

Time complexity

Trust: Triangle Counting Reloaded on GPUs. *Pandey, S., +, TPDS Nov. 2021 2646-2660*

Accelerating the Bron-Kerbosch Algorithm for Maximal Clique Enumeration Using GPUs. *Yi-Wen, W., +, TPDS Sept. 2021 2352-2366*

LightChain: Scalable DHT-Based Blockchain. *Hassanzadeh-Nazarabadi, Y., +, TPDS Oct. 2021 2582-2593*

Time factors

Multi-Queue Request Scheduling for Profit Maximization in IaaS Clouds. *Wang, S., +, TPDS Nov. 2021 2838-2851*

Time series

A GPU Acceleration Framework for Motif and Discord Based Pattern Mining. *Zhu, B., +, TPDS Aug. 2021 1987-2004*

ADRL: A Hybrid Anomaly-Aware Deep Reinforcement Learning-Based Resource Scaling in Clouds. *Kardani-Moghaddam, S., +, TPDS March 2021 514-526*

Pebbles: Leveraging Sketches for Processing Voluminous, High Velocity Data Streams. *Buddhika, T., +, TPDS Aug. 2021 2005-2020*

Time-varying systems

Distributed Adaptive Consensus Tracking Control for Multi-Agent System With Communication Constraints. *Zhang, P., +, TPDS June 2021 1293-1306*

Tracking

Distributed Adaptive Consensus Tracking Control for Multi-Agent System With Communication Constraints. *Zhang, P., +, TPDS June 2021 1293-1306*

Training

Accurate Differentially Private Deep Learning on the Edge. *Han, R., +, TPDS Sept. 2021 2231-2247*

An Incremental Iterative Acceleration Architecture in Distributed Heterogeneous Environments With GPUs for Deep Learning. *Zhang, X., +, TPDS Nov. 2021 2823-2837*

Data Life Aware Model Updating Strategy for Stream-Based Online Deep Learning. *Rang, W., +, TPDS Oct. 2021 2571-2581*

DTransE: Distributed Translating Embedding for Knowledge Graph. *Song, D., +, TPDS Oct. 2021 2509-2523*

Efficient Data Loader for Fast Sampling-Based GNN Training on Large Graphs. *Bai, Y., +, TPDS Oct. 2021 2541-2556*

Optimizing Resource Allocation for Data-Parallel Jobs Via GCN-Based Prediction. *Hu, Z., +, TPDS Sept. 2021 2188-2201*

Overlapping Communication With Computation in Parameter Server for Scalable DL Training. *Wang, S., +, TPDS Sept. 2021 2144-2159*

Spartan: A Sparsity-Adaptive Framework to Accelerate Deep Neural Network Training on GPUs. *Dong, S., +, TPDS Oct. 2021 2448-2463*

VeriML: Enabling Integrity Assurances and Fair Payments for Machine Learning as a Service. *Zhao, L., +, TPDS Oct. 2021 2524-2540*

Training data

GML: Efficiently Auto-Tuning Flink's Configurations Via Guided Machine Learning. *Guo, Y., +, TPDS Dec. 2021 2921-2935*

Transaction processing

Failure-Atomic Byte-Addressable R-tree for Persistent Memory. *Cho, S., +, TPDS March 2021 601-614*

Lewat: A Lightweight, Efficient, and Wear-Aware Transactional Persistent Memory System. *Huang, K., +, TPDS March 2021 649-664*

Transfer learning

Optimizing Resource Allocation for Data-Parallel Jobs Via GCN-Based Prediction. *Hu, Z.*, +, *TPDS Sept. 2021 2188-2201*

Transforms

Improved MPC Algorithms for Edit Distance and Ulam Distance. *Boroujeni, M.*, +, *TPDS Nov. 2021 2764-2776*

Tree data structures

A Scalable Stateful Approach for Virtual Security Functions Orchestration. *Moradi, N.*, +, *TPDS June 2021 1383-1394*

Auditing Cache Data Integrity in the Edge Computing Environment. *Li, B.*, +, *TPDS May 2021 1210-1223*

Trees (mathematics)

Constructing Completely Independent Spanning Trees in Data Center Network Based on Augmented Cube. *Chen, G.*, +, *TPDS March 2021 665-673*

Failure-Atomic Byte-Addressable R-tree for Persistent Memory. *Cho, S.*, +, *TPDS March 2021 601-614*

MO-Tree: An Efficient Forwarding Engine for Spatiotemporal-Aware Pub/Sub Systems. *Ding, T.*, +, *TPDS April 2021 855-866*

Trusted computing

QShield: Protecting Outsourced Cloud Data Queries With Multi-User Access Control Based on SGX. *Chen, Y.*, +, *TPDS Feb. 2021 485-499*

Tuning

GML: Efficiently Auto-Tuning Flink's Configurations Via Guided Machine Learning. *Guo, Y.*, +, *TPDS Dec. 2021 2921-2935*

Two dimensional displays

Trust: Triangle Counting Reloaded on GPUs. *Pandey, S.*, +, *TPDS Nov. 2021 2646-2660*

BALS: Blocked Alternating Least Squares for Parallel Sparse Matrix Factorization on GPUs. *Chen, J.*, +, *TPDS Sept. 2021 2291-2302*

U**Uncertainty**

PISTIS: An Event-Triggered Real-Time Byzantine-Resilient Protocol Suite. *Kozhaya, D.*, +, *TPDS Sept. 2021 2277-2290*

Unix

Subutai: Speeding Up Legacy Parallel Applications Through Data Synchronization. *Cataldo, R.*, +, *TPDS May 2021 1102-1116*

Upper bound

Accelerating the Bron-Kerbosch Algorithm for Maximal Clique Enumeration Using GPUs. *Yi-Wen, W.*, +, *TPDS Sept. 2021 2352-2366*

Logically Parallel Communication for Fast MPI+Threads Applications. *Zambre, R.*, +, *TPDS Dec. 2021 3038-3052*

V**Vectors**

Adaptive SpMV/SpMSpV on GPUs for Input Vectors of Varied Sparsity. *Li, M.*, +, *TPDS July 2021 1842-1853*

Video cameras

A Scalable Platform for Distributed Object Tracking Across a Many-Camera Network. *Khochare, A.*, +, *TPDS June 2021 1479-1493*

Video coding

Cuttlefish: Neural Configuration Adaptation for Video Analysis in Live Augmented Reality. *Chen, N.*, +, *TPDS April 2021 830-841*

Video recording

A Unified Framework for Flexible Playback Latency Control in Live Video Streaming. *Zhang, G.*, +, *TPDS Dec. 2021 3024-3037*

Video streaming

Cuttlefish: Neural Configuration Adaptation for Video Analysis in Live Augmented Reality. *Chen, N.*, +, *TPDS April 2021 830-841*

Virtual machine monitors

Virtualization Overhead of Multithreading in X86 State-of-the-Art & Remaining Challenges. *Schildermans, S.*, +, *TPDS Oct. 2021 2557-2570*

Virtual machines

A Case for Pricing Bandwidth: Sharing Datacenter Networks With Cost Dominant Fairness. *Chen, L.*, +, *TPDS May 2021 1256-1269*

A Thread Level SLO-Aware I/O Framework for Embedded Virtualization. *Gong, X.*, +, *TPDS March 2021 500-513*

Elastic Scheduling for Microservice Applications in Clouds. *Wang, S.*, +, *TPDS Jan. 2021 98-115*

PredCom: A Predictive Approach to Collecting Approximated Communication Traces. *Miwa, S.*, +, *TPDS Jan. 2021 45-58*

Sova: A Software-Defined Autonomic Framework for Virtual Network Allocations. *Ye, Z.*, +, *TPDS Jan. 2021 116-130*

Virtualization

A Case for Pricing Bandwidth: Sharing Datacenter Networks With Cost Dominant Fairness. *Chen, L.*, +, *TPDS May 2021 1256-1269*

A Scalable Stateful Approach for Virtual Security Functions Orchestration. *Moradi, N.*, +, *TPDS June 2021 1383-1394*

A Survey of System Architectures and Techniques for FPGA Virtualization. *Quraishi, M.H.*, +, *TPDS Sept. 2021 2216-2230*

A Thread Level SLO-Aware I/O Framework for Embedded Virtualization. *Gong, X.*, +, *TPDS March 2021 500-513*

ADRL: A Hybrid Anomaly-Aware Deep Reinforcement Learning-Based Resource Scaling in Clouds. *Kardani-Moghaddam, S.*, +, *TPDS March 2021 514-526*

Joint Task Scheduling and Containerizing for Efficient Edge Computing. *Zhang, J.*, +, *TPDS Aug. 2021 2086-2100*

On the Effective Parallelization and Near-Optimal Deployment of Service Function Chains. *Luo, J.*, +, *TPDS May 2021 1238-1255*

Recent Advances of Resource Allocation in Network Function Virtualization. *Yang, S.*, +, *TPDS Feb. 2021 295-314*

Sova: A Software-Defined Autonomic Framework for Virtual Network Allocations. *Ye, Z.*, +, *TPDS Jan. 2021 116-130*

Virtualization Overhead of Multithreading in X86 State-of-the-Art & Remaining Challenges. *Schildermans, S.*, +, *TPDS Oct. 2021 2557-2570*

Visualization

Critique of "Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility" by SCC Team From University of Warsaw. *Masiak, M.*, +, *TPDS Nov. 2021 2635-2638*

W**Wear**

Lewat: A Lightweight, Efficient, and Wear-Aware Transactional Persistent Memory System. *Huang, K.*, +, *TPDS March 2021 649-664*

Web services

Modeling and Optimization of Performance and Cost of Serverless Applications. *Lin, C.*, +, *TPDS March 2021 615-632*

Wireless channels

Fast Adaptive Task Offloading in Edge Computing Based on Meta Reinforcement Learning. *Wang, J.*, +, *TPDS Jan. 2021 242-253*