

Chadi Barakat

List of publications

Edited Journals and Books, Book Chapters, Editorials

- [1] Chadi Barakat, Cristel Pelsser, Theophilus A. Benson, David Choffnes (Eds.), Proceedings of the 22nd ACM Internet Measurement Conference, IMC'22, October 25-27, 2022, Nice, France. ACM 2022, ISBN 978-1-4503-9259-4.
- [2] Chadi Barakat, Renata Teixeira, K. K. Ramakrishnan, Patrick Thiran (Eds.), Proceedings of the 2012 Conference on emerging Networking Experiments and Technologies, CoNEXT'12, December 10-13, 2012, Nice, France. ACM 2012, ISBN 978-1-4503-1775-7.
- [3] Eitan Altman, Konstantin Avrachenkov, Chadi Barakat, Kartikeya Chandrayana, "A Multilevel Approach for the Modelling of Large TCP/IP Networks", Chapter 4 in "Recent Advances in Modeling and Simulation Tools for Communication Networks and Services" published by Springer, September 2007.
- [4] Chadi Barakat, Gianluca Iannaccone, Jim Kurose, Darryl Veitch, "Sampling the Internet: techniques and applications", IEEE Journal of Selected Areas in Communications, vol. 24, no. 12, December 2006.
- [5] Chadi Barakat, "Evaluation des performances des réseaux WIFI 802.11", Techniques de l'Ingénieur, Lettre réseaux sans fil, Numéro Novembre-Décembre 2006.
- [6] Chadi Barakat, Ian Pratt: Passive and Active Network Measurement, 5th International Workshop, PAM 2004, Antibes Juan-les-Pins, France, April 19-20, 2004, Proceedings. Lecture Notes in Computer Science 3015 Springer 2004, ISBN 3-540-21492-5.

Refereed Journal and Magazine Papers

- [7] Houssam ElBouanani, Chadi Barakat, Walid Dabbous, Thierry Turletti, "Fidelity-aware Large-scale Distributed Network Emulation", in Elsevier Computer Networks Journal, to appear.
- [8] Houssam Elbouanani, Chadi Barakat, Walid Dabbous, Thierry Turletti, "Troubleshooting Distributed Network Emulation", in Springer Annals of Telecommunications, vol. 79, pp. 227-239, April 2024.
- [9] Bernard Tamba Sandouno, Yamen Alsaba, Chadi Barakat, Walid Dabbous, Thierry Turletti, "A novel approach for ray tracing optimization in wireless communication", in Elsevier Computer Communications Journal, vol. 209, pp. 309-319, September 2023.
- [10] Houssam ElBouanani, Chadi Barakat, Walid Dabbous, Thierry Turletti, "Passive Delay Measurement for Fidelity Monitoring of Distributed Network Emulation", in Elsevier Computer Communications Journal, vol. 195, pp. 40-48, November 2022.
- [11] Tingting Yuan, Wilsons Neto, Christian Rothenberg, Katia Obraczka, Chadi Barakat, Thierry Turletti, "Machine Learning for Next-Generation Intelligent Transportation Systems: A Survey", in Wiley Transactions on Emerging Telecommunications Technologies, vol. 33, no. 4, pp e4427, April 2022.

- [12] Tingting Yuan, Christian Esteve Rothenberg, Katia Obraczka, Chadi Barakat, Thierry Turetli, "Harnessing UAVs for Fair 5G Bandwidth Allocation in Vehicular Communication via Deep Reinforcement Learning", in *IEEE Transactions on Network and Service Management*, vol. 18, no. 4, pp. 4063 - 4074, December 2021.
- [13] Othmane Belmoukadam, Chadi Barakat, "Unveiling the end-user viewport resolution from encrypted video traces", in *IEEE Transactions on Network and Service Management*, vol. 18, no. 3, pp. 3324-3335, September 2021.
- [14] Tingting Yuan, Wilson da Rocha Neto, Christian Esteve Rothenberg, Katia Obraczka, Chadi Barakat, Thierry Turetli, "Dynamic Controller Assignment in Software Defined Internet of Vehicles through Multi-Agent Deep Reinforcement Learning", in *IEEE Transactions on Network and Service Management*, vol. 18, no. 1, pp. 585-596, March 2021.
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- [16] Luigi Vigneri, Thrasyvoulos Spyropoulos, Chadi Barakat, "Quality of Experience-Aware Mobile Edge Caching through a Vehicular Cloud", in *IEEE Transactions on Mobile Computing*, vol. 19, no. 9, pp. 2174 - 2188, September 2020.
- [17] Muhammad Jawad Khokhar, Nawfal Abbassi Saber, Thierry Spetebroot, Chadi Barakat, "An Intelligent Sampling Framework for Controlled Experimentation and QoE Modeling", in *Elsevier Computer Networks Journal*, vol. 147, pp. 246-261, December 2018.
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- [19] Xuan-Nam Nguyen, Damien Saucez, Chadi Barakat, Thierry Turetli, "Rules Placement Problem in OpenFlow Networks: a Survey", in *IEEE Communications Surveys and Tutorials*, vol. 18, no. 2, pp. 1273-1286, Secondquarter 2016.
- [20] Damien Saucez, Stefano Secci, Chadi Barakat, "On the Incentives and Incremental Deployments of ICN technologies for OTT Services", in *IEEE Network Magazine: Special Issue-Information-Centric Networking Beyond Baseline Scenarios: Research Advances and Implementation*, vol. 28, no. 3, pp. 20-25, May-June 2014.
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- [46] Naomi Kirimi, Chadi Barakat, Yassine Hadjadj-Aoul, "Passive network monitoring and troubleshooting from within the browser: a data-driven approach", in proceedings of the 20th International Wireless Communications & Mobile Computing Conference (IWCMC), Multimedia Symposium, Cyprus, May 2024.
- [47] Bernard Tamba Sandouno, Chadi Barakat, Thierry Turletti, Walid Dabbous, "Optimizing Ray Tracing Techniques for Generating Large-Scale 3D Radio Frequency Maps", in proceedings of the 25th IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM), Perth, Australia, June 2024.
- [48] Raza Ul Mustafa, Chadi Barakat, Christian Esteve Rothenberg, "YouTube goes 5G: QoE Benchmarking and ML-based Stall Prediction", in proceedings of the IEEE Wireless Communications and Networking Conference (WCNC), Dubai, UAE, April 2024.
- [49] Houssam ElBouanani, Chadi Barakat, Walid Dabbous, Thierry Turletti, "Troubleshooting Distributed Network Emulation", in proceedings of the 26th Conference on Innovation in Clouds, Internet and Networks (ICIN), Paris, France, March 2023.
- [50] Houssam ElBouanani, Chadi Barakat, Walid Dabbous, Thierry Turletti, "Delay-based Fidelity Monitoring of Distributed Network Emulation", in proceedings of IEEE COMSNETS Workshop on Testbeds for Advanced Systems Implementation and Research (TASIR), Bangalore, India, January 2023.
- [51] Bernard Tamba Sandouno, Yamen Alsaba, Chadi Barakat, Walid Dabbous, Thierry Turletti, "A novel approach to mobile outdoor QoS map generation", in proceedings of the IEEE Wireless Communications and Networking Conference (WCNC), Glasgow, Scotland, UK, March 2023.

- [52] Bernard Tamba Sandouno, Yamen Alsaba, Chadi Barakat, Walid Dabbous, Thierry Turetletti, "Site-specific ray generation for accurate estimation of signal power", in proceedings of the 25th ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWiM), Montreal, Canada, October 2022.
- [53] Imane Taibi, Yassine Hadjadj-Aoul, Chadi Barakat, "Leveraging Web browsing performance data for Network monitoring: A data-driven approach", in proceedings of IEEE Globecom, Rio, Brazil, December 2022.
- [54] Othmane Belmoukadam, Chadi Barakat, "QoE-Driven Cache Placement for Adaptive Video Streaming: Minding the Viewport", in proceedings of the IEEE International Mediterranean Conference on Communications and Networking (MeditCom), Athens, Greece, September 2021.
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- [56] Giulio Grassi, Renata Teixeira, Chadi Barakat, Mark Crovella, "Leveraging Website Popularity Differences to Identify Performance Anomalies", in proceedings of IEEE INFOCOM, May 2021.
- [57] Othmane Belmoukadam, Chadi Barakat, "From Encrypted Video Traces to Viewport Classification", in proceedings of the 16th International Conference on Network and Service Management (CNSM), Virtual Conference, November 2020. **Best paper.**
- [58] Othmane Belmoukadam, Muhammad Jawad Khokhar, Chadi Barakat, "On excess bandwidth usage of video streaming: when video resolution mismatches browser viewport", in proceedings of the 11th IEEE International Conference on Networks of the Future (NoF 2020), Bordeaux, France, October 2020.
- [59] Imane Taibi, Yassine Hadjadj-Aoul, Chadi Barakat, "Data Driven Network Performance Inference From Within The Browser", in proceedings of the 12th IEEE Workshop on Performance Evaluation of Communications in Distributed Systems and Web based Service Architectures (PEDISWESA), Rennes, July 2020.
- [60] Imane Taibi, Yassine Hadjadj-Aoul, Chadi Barakat, "When Deep Learning meets Web Measurements to infer Network Performance", in proceedings of the IEEE 17th Annual Consumer Communications & Networking Conference (CCNC), Las Vegas, January 2020.
- [61] Othmane Belmoukadam, Muhammad Jawad Khokhar, Chadi Barakat, "On Accounting for Screen Resolution in Adaptive Video Streaming: A QoE-Driven Bandwidth Sharing Framework", in proceedings of the 15th International Conference on Network and Service Management (CNSM), Halifax, Canada, October 2019.
- [62] Muhammad Jawad Khokhar, Thibaut Ehlinger, Chadi Barakat, "From Network Traffic Measurements to QoE for Internet Video", in proceedings of IFIP Networking, Warsaw, Poland, May 2019.
- [63] Othmane Belmoukadam, Thierry Spetebroot, Chadi Barakat, "ACQUA: A user friendly platform for lightweight network monitoring and QoE forecasting", in proceedings of the 3rd International Workshop on QoE Management, Paris, February 2019.
- [64] Karyna Gogunska, Chadi Barakat, Guillaume Urvoy-Keller, Dino Lopez Pacheco, "On the Cost of Measuring Traffic in a Virtualized Environment", in proceedings of IEEE CloudNet, Tokyo, October 2018. **Best student paper.**

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- [87] Rosa Vilardi, Luigi Alfredo Grieco, Gennaro Boggia, Chadi Barakat, "Adaptation of Real-time Temporal Resolution for Bitrate Estimates in IPFIX Systems", in proceedings of the 2nd International Workshop on TRaffic Analysis and Classification TRAC 2011, Istanbul, July 2011.
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- [92] Amir Krifa, Imed Lassoued, Chadi Barakat, "Emulation Platform for Network Wide Traffic Sampling and Monitoring", in proceedings of the 1st International Workshop on TRaffic Analysis and Classification (TRAC), Caen, France, June 2010.
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- [94] Karim Sbali, Emna Salhi, Chadi Barakat, "P2P content sharing in spontaneous multi-hop wireless networks", in proceedings of the IEEE COMSNETS conference, Bangalore, January 2010.
- [95] Luigi Alfredo Grieco, Chadi Barakat, "A Frequency Domain Model to Predict the Estimation Accuracy of Packet Sampling", in proceedings of the IEEE Infocom MiniConference, San Diego, CA, March 2010.
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- [100] Anwar Al-Hamra, Nikitas Liogkas, Arnaud Legout, Chadi Barakat, "Swarming Overlay Construction Strategies", in proceedings of IEEE ICCCN conference, San Francisco, August 2009.
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- [111] Marc Liberatore, Brian Levine, Chadi Barakat, "Maximizing Transfer Opportunities in DTN", in proceedings of CoNext, Lisboa, Portugal, December 2006.
- [112] Anwar Al Hamra, Chadi Barakat, Thierry Turletti, "Network Coding for Wireless Mesh Networks: A Case Study", in proceedings of the IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM), Buffalo-NY, June 2006.
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