

Bibliography

■ **Note** Entries do not appear in alphabetical order.

1. Bajcsy, R. "Computer Description of Textured Surfaces." International Conference on Artificial Intelligence, 1973.
2. Bajcsy, R., and L. Lieberman. "Texture Gradient as a Depth Cue." *Computer Graphics and Image Processing* 5, no. 1 (1976).
3. Cross, G. R., and A. K. Jain. "Markov Random Field Texture Models." *PAMI* 54, no. 1 (1983).
4. Gonzalez R., and R. Woods. *Digital Image Processing*, 3rd ed. Englewood Cliffs, NJ: Prentice-Hall, 2007.
5. Haralick, R. M. "Statistical and Structural Approaches to Texture." *Proceedings of the International Joint Conference on Pattern Recognition*, 1979.
6. Haralick, R. M., R. Shanmugan, and I. Dinstein. "Textural Features for Image Classification." *IEEE Transactions on Systems, Man Cybernetics*. SMC-3, no. 6 (1973).
7. Hu, M. K. "Visual Pattern Recognition by Moment Invariants." *IRE Transactions on Information Theory, Volume: 8, Issue: 2*, (1962)
8. Lu, H. E., and K. S. Fu. "A Syntactic Approach to Texture Analysis." *Computer Graphics Image Processing* 7, no. 3 (1978).
9. Pratt, W. K. *Digital Image Processing*, 3rd ed. Hoboken, NJ: John Wiley, 2002.
10. Rosenfeld A., and A. C. Kak. *Digital Picture Processing*, 2nd ed. New York: Academic Press, 1982.
11. Tomita, F., Y. Shirai, and S. Tsuji. "Description of Texture by a Structural Analysis." *Pattern Analysis and Machine Intelligence* 4, no. 2 (1982).
12. Wong, R. Y., and E. L. Hall. "Scene Matching with Invariant Moments." *Computer Graphics Image Processing* 8 (1978).
13. Guoying Zhao and Matti Pietikainen. "Dynamic Texture Recognition Using Local Binary Patterns with an Application to Facial Expressions." *Transactions of Pattern Analysis and Machine Intelligence* (2007).
14. Kellokumpu, Vili, Guoying Zhao, and Matti Pietikäinen. "Human Activity Recognition Using a Dynamic Texture Based Method."

15. Guoying Zhao and Matti Pietikäinen. Dynamic Texture Recognition Using Local Binary Patterns with an Application to Facial Expressions." *Pattern Analysis and Machine Intelligence* 2007.
16. Eichmann, G., and T. Kasparis. "Topologically Invariant Texture Descriptors." *Computer Vision, Graphics and Image Processing* 41, no. 3 (March 1988).
17. Lam, S. W. C., and H. H. S. Ip. "Structural Texture Segmentation Using Irregular Pyramid." *Pattern Recognition Letters* 15, no. 7 (July 1994).
18. Pietikäinen, Matti, Guoying Zhao, and Ahonen Hadid. *Computer Vision Using Local Binary Patterns*. New York: Springer, 2011.
19. Ojala, T., M. Pietikäinen, and D. Hardwood. "Performance Evaluation of Texture Measures with Classification Based on Kullback Discrimination of Distributions." *Proceedings of the International Conference on Pattern Recognition*, 1994.
20. Ojala T., M. Pietikäinen, and D. Hardwood. "A Comparative Study of Texture Measures with Classification Based on Feature Distributions." *Pattern Recognition* 29 (1996).
21. Van Ginneken, Bram, and Jan J. Koenderink. "Texture Histograms as a Function of Irradiation and Viewing Direction," *International Journal of Computer Vision* 31(2/3), 169-184 (1999).
25. Aioanei, Stelu, Arati Kurani, and Dong-Hui Xu. Texture Analysis for Computed Tomography Studies. *Visual Computing Workshop DePaul University (2004)*.
26. Krig, Scott A. "Image Texture Analysis Using Spatial Dependency Matrices." *Krig Research White Paper Series*, October 1994.
- 27-31. Not used.
32. Laws, K. I. "Rapid Texture Identification." *SPIE* 238 (1980).
33. Bajcsy, R. K. "Computer Identification of Visual Surfaces." *Computer Graphics and Image Processing* Volume 2, Issue 2, Pages 118-130 (October 1973).
34. Kaizer, H. *A Quantification of Textures on Aerial Photographs*. MS thesis, Boston University, 1955.
35. Laws, K. I. "Texture Energy Measures." *Proceedings of the Image Understanding Workshop*, November 1979.
36. Laws, K. I. "Rapid Texture Identification." *SPIE* 238 (1980).
37. Laws, K. I. *Textured Image Segmentation*. PhD thesis, University of Southern California, 1980.
38. Ade, F. "Characterization of Textures by 'Eigenfilters.'" *Signal Processing* 5 (1983).
39. Davis, L. S. "Computing the Spatial Structures of Cellular Texture." *Computer Graphics and Image Processing* 11, no. 2 (October 1979).
40. Eichmann, G., and T. Kasparis. "Topologically Invariant Texture Descriptors." *Computer Vision Graphics and Image Processing* 41, no. 3 (March 1988).
41. Lam, S. W. C., and H. H. S. Ip. "Structural Texture Segmentation Using Irregular Pyramid." *Pattern Recognition Letters* 15, no. 7 (July 1994).
42. Pietikäinen, Matti, Guoying Zhao, and Hadid, Ahonen, *Computer Vision Using Local Binary Patterns*. New York: Springer, 2011.
43. Ojala, T., M. Pietikäinen, and D. Hardwood. "Performance Evaluation of Texture Measures with Classification Based on Kullback Discrimination of Distributions." *Proceedings of the International Conference on Pattern Recognition*, 1994.

44. Ojala T., M. Pietikäinen, and D. Hardwood. "A Comparative Study of Texture Measures with Classification Based on Feature Distributions." *Pattern Recognition* 29 (1996).
45. Pun, C. M., and M. C. Lee. "Log-polar Wavelet Energy Signatures for Rotation and Scale Invariant Texture Classification." *Transactions of Pattern Analysis and Machine Intelligence* 25, no. 5 (May 2003).
46. Spence, A., M. Robb, M. Timmins, and M. Chantler. "Real-time per-pixel Rendering of Textiles for Virtual Textile Catalogues." *Proceedings of INTEDEC, Edinburgh*, September, 2003.
47. Lam, Steven W. C., and Horace H. S. Ip. *Adaptive Pyramid Approach to Texture Segmentation*, Computer Analysis of Images and Patterns Lecture Notes in Computer Science Volume 719, 1993, pp. 267-274.
48. Dana, K. J., B. van Ginneken, S. K. Nayar, and J. J. Koenderink. "Reflectance and Texture of Real World Surfaces." Technical report CUCS-048-96, Columbia University, 1996.
49. Dana, K. J., B. van Ginneken, S. K. Nayar, and J. J. Koenderink. "Reflectance and Texture of Real World Surfaces." Conference on Computer Vision and Pattern Recognition, 1997.
50. Dana, K. J., B. van Ginneken, S. K. Nayar, and J. J. Koenderink. "Reflectance and Texture of Real World Surfaces." *ACM Transactions on Graphics* (1999).
51. Suzuki, M. T., and Yoshitomo Yaginuma. "A Solid Texture Analysis Based on Three Dimensional Convolution Kernels." *Proceedings of the SPIE, Volume 6491*, (2007).
52. Suzuki, M. T., Yoshitomo Yaginuma, Tsuneo Yamada, and Yasutaka Shimizu. "A Shape Feature Extraction Method Based on 3D Convolution Masks." *Eighth IEEE International Symposium on Multimedia, ISM'06*. (2006)
53. Guoying Zhao and Matti Pietikainen. "Dynamic Texture Recognition Using Local Binary Patterns with an Application to Facial Expressions." *Transactions on Pattern Analysis and Machine Intelligence* Volume 29 (2007).
54. Hadjidemetriou, E., M. D. Grossberg, and S. K. Nayar. "Multiresolution Histograms and Their Use for Texture Classification." *IEEE PAMI Volume 26*.
55. Hadjidemetriou, E., M. D. Grossberg, and S. K. Nayar. "Multiresolution Histograms and Their Use for Recognition." *IEEE PAMI* (vol. 26 no. 7) (2004).
56. Lee and Chen, "A New Method for Coarse Classification of Textures and Class Weight Estimation for Texture Retrieval, *Pattern Recognition and Image Analysis*. Vol. 12, no. 4 (2002).
57. Van Ginneken, Bram, and Jan J. Koenderink. "Texture Histograms as a Function of Irradiation and Viewing Direction." *International Journal of Computer Vision* 31(2/3), 169-184 (1999).
58. Shu Liao and Albert C. S. Chung. *Texture Classification by Using Advanced Local Binary Patterns and Spatial Distribution of Dominant Patterns*. ICASSP 2007. IEEE International Conference on Acoustics, Speech and Signal Processing, 2007.
59. Aioanei, Stelu, Arati Kurani, and Dong-Hui Xu. *Texture Analysis for Computed Tomography Studies*,. Visual Computing Workshop DePaul University (2004).
60. Ade, F. "Characterization of Textures by 'Eigenfilters.'" *Signal Processing* 5 (1983).
61. Rosin, Paul L. "Measuring Corner Properties." *Computer Vision & Image Understanding, Vol. 73, No. 2*.
62. Russel, Bryan, Jianxiong Xiao, and Antonio Torralba. "Localizing 3D Cuboids in Single-view Images." *Conference on Neural Information Processing Systems, 2012*.

63. Snavely, Noah, Steven M. Seitz, and Richard Szeliski. "Photo Tourism: Exploring Photo Collections in 3D." *ACM Transactions on Graphics* (SIGGRAPH Proceedings) (2006).
64. Snavely, Noah, Steven M. Seitz, and Richard Szeliski. "Modeling the World from Internet Photo Collections." *International Journal of Computer Vision* (TBP).
65. Furukawa, Yasutaka, Brian Curless, Steven M. Seitz, and Richard Szeliski. "Towards Internet-Scale Multi-View Stereo." *Conference on Computer Vision and Pattern Recognition, 2010*.
66. Yunpeng Li, Noah Snavely, Dan Huttenlocher, and Pascal Fua. "Worldwide Pose Estimation using 3D Point Clouds." *European Conference on Computer Vision, 2012*.
67. Russell, B., A. Torralba, K. Murphy, and W. T. Freeman. "LabelMe: A Database and Web-based Tool for Image Annotation." *International Journal of Computer Vision Volume 77* (2007).
68. Oliva, A., and A. Torralba. "Modeling the Shape of the Scene: A Holistic Representation of the Spatial Envelope." *International Journal of Computer Vision Volume 42* (2001).
69. Lai, Kevin, Liefeng Bo, Xiaofeng Ren, and Dieter Fox. "A Large-Scale Hierarchical Multi-View RGB-D Object Dataset." *International Conference on Robotics and Automation, 2011*.
70. Xiao, J., J. Hays, K. Ehinger, A. Oliva, and A. Torralba. "SUN Database: Large-scale Scene Recognition from Abbey to Zoo." *Conference on Computer Vision and Pattern Recognition, 2010*.
71. Fei-Fei, L., R. Fergus, and P. Perona. "Learning Generative Visual Models from Few Training Examples: An Incremental Bayesian Approach Tested on 101 Object Categories." *Conference on Computer Vision and Pattern Recognition, 2004*.
72. Fei-Fei, L. "ImageNet: Crowdsourcing, Benchmarking & Other Cool Things." *CMU VASC Seminar, March 2010*.
73. Pirsiavash, Hamed, and Deva Ramanan. "Detecting Activities of Daily Living in First-person Camera Views." *Conference on Computer Vision and Pattern Recognition, 2012*.
74. Quattoni, A., and A. Torralba. "Recognizing Indoor Scenes." *Conference on Computer Vision and Pattern Recognition, 2009*.
75. Lai, Kevin, Liefeng Bo, Xiaofeng Ren, and Dieter Fox. "A Large-Scale Hierarchical Multi-View RGB-D Object Dataset." *International Conference on Robotics and Automation, May 2011*.
76. Silberman, Nathan, Derek Hoiem, Pushmeet Kohli, and Rob Fergus. "Indoor Segmentation and Support Inference from RGBD Images." *European Conference on Computer Vision, 2012*.
77. Xiaofeng Ren and Matthai Philipose. "Egocentric Recognition of Handled Objects: Benchmark and Analysis." *CVPR Workshops 2009*.
78. Xiaofeng Ren and Chunhui Gu. "Figure-Ground Segmentation Improves Handled Object Recognition in Egocentric Video." *Conference on Computer Vision and Pattern Recognition, 2009*.
79. Fathi, Alireza, Yin Li, and James M. Rehg. "Learning to Recognize Daily Actions Using Gaze." *European Conference on Computer Vision, 2012*.

80. Dana, K. J., B. van Ginneken, S. K. Nayar, and J. J. Koenderink. "Reflectance and Texture of Real World Surfaces." *Transactions on Graphics (TOG)*18, no.1 (January 1999).
81. Ce Liu, Lavanya Sharan, Edward H. Adelson, and Ruth Rosenholtz. "Exploring Features in a Bayesian Framework for Material Recognition." *Conference on Computer Vision and Pattern Recognition, 2010*.
82. Huang, Gary B., Manu Ramesh, Tamara Berg, and Erik Learned-Miller. "Labeled Faces in the Wild: A Database for Studying Face Recognition in Unconstrained Environments." *Technical report 07-49, University of Massachusetts, Amherst, October 2007*.
83. Gross, R., I. Matthews, J. F. Cohn, T. Kanade, and S. Baker. "Multi-PIE." *Proceedings of the Eighth IEEE International Conference on Automatic Face and Gesture Recognition, 2008*.
84. Yao, B., X. Jiang, A. Khosla, A. L. Lin, L. J. Guibas, and L. Fei-Fei. "Human Action Recognition by Learning Bases of Action Attributes and Parts." *International Conference on Computer Vision, 2011*.
85. Y LeCun, F J Huang, L Bottou, "Learning Methods for Generic Object Recognition with Invariance to Pose and Lighting." *Proceedings of the Conference on Computer Vision and Pattern Recognition, 2004*.
86. McCane, B., K. Novins, D. Crannitch, and B. Galvin. "On Benchmarking Optical Flow." *Computer Vision and Image Understanding* 84, no. 1 2001.
87. Pirsiavash, Hamed, and Deva Ramanan. "Detecting Activities of Daily Living in First-person Camera Views." Conference on Computer Vision and Pattern Recognition, Providence, Rhode Island, June 2012.
88. Hamarneh, Ghassan, Preet Jassi, and Lisa Tang. "Simulation of Ground-Truth Validation Data via Physically- and Statistically-Based Warps." *MICCAI 2008, the 11th International Conference on Medical Image Computing and Computer Assisted Intervention*.
89. Prastawa, Marcel, Elizabeth Bullitt, and Guido Gerig. "Synthetic Ground Truth for Validation of Brain Tumor MRI Segmentation." *MICCAI 2005, the 8th International Conference on Medical Image Computing and Computer Assisted Intervention*.
90. Vedaldi, Andrea, Haibin Ling, and Stefano Soatto. "Knowing a Good Feature When You See It: Ground Truth and Methodology to Evaluate Local Features for Recognition." *Computer Vision Studies in Computational Intelligence Volume 285, 2010, pp. 27-49*.
91. Dutagaci, Helin, Chun Pan Cheung, and Afzal Godil. "Evaluation of 3D Interest Point Detection Techniques via Human-generated Ground Truth." *The Visual Computer September 2012, Volume 28 (2012)*.
92. Rosin, Paul L. "Augmenting Corner Descriptors." *Graphical Models and Image Processing, Volume 58, Issue 3, May 1996*.
93. Rockett, P. I. "Performance Assessment of Feature Detection Algorithms: A Methodology and Case Study on Corner Detectors." *Transaction on Image Processing* 12, no. 12 (2003).
94. Shahroki, A., A. Ellis, and J. Ferryman. "Overall Evaluation of the PETS2009 Results." *IEEE PETS (2009)*.

95. Over, P, Awad, G, Sanders G, Shaw B, Martial M, Fiscus, J, Kraaij, W, Smeaton, AF "TRECVID 2013: An Overview of the Goals, Tasks, Data, Evaluation Mechanisms, and Metrics, *NIST USA, March 7, 2013*.
96. Horn, B. K. P., and B. G. Schunck. "Determining Optical Flow." AI memo 572, Massachusetts Institute of Technology, 1980.
97. Everingham, M., L. Van Gool, C. K. I. Williams, J. Winn, and A. Zisserman. "The PASCAL Visual Object Classes (VOC) Challenge." *International Journal of Computer Vision* 88, no. 2 (2010).
98. Liu, Jingen, Jiebo Luo, and Mubarak Shah. "Recognizing Realistic Actions from Videos 'in the Wild.'" Conference on Computer Vision and Pattern Recognition, 2009.
99. Arbelaez, P., M. Maire, C. Fowlkes, and J. Malik. "Contour Detection and Hierarchical Image Segmentation." *Transactions on Pattern Analysis and Machine Intelligence*, (Volume: 33, Issue: 5) May 2011.
100. Fisher, R. B. "PETS04 Surveillance Ground Truth Data Set." *Proceedings of IEEE PETS*, 2004.
101. Quan Yuan, Ashwin Thangali, Vitaly Ablavsky, and Stan Sclaroff. "Learning a Family of Detectors via Multiplicative Kernels." *Pattern Analysis and Machine Intelligence* (Volume: 33, Issue: 3) (2011).
102. Ericsson, Anders, and Johan Karlsson. "Measures for Benchmarking of Automatic Correspondence Algorithms." *JMIV* (2007).
103. Takhar, Dharmpal, et al. "A New Compressive Imaging Camera Architecture using Optical-Domain Compression. In *Proc. IS&T/SPIE Symposium on Electronic Imaging (2006)*.
104. Marco F. Duarte, Richard G. Baraniuk, Kronecker Compressive Sensing, *IEEE Transactions on Image Processing (Volume: 21, Issue: 2) 2012*.
105. Weinzaepfel, Philippe, Herv'e Jegou, and Patrick Perez. "Reconstructing an Image from Its Local Descriptors." Conference on Computer Vision and Pattern Recognition, 2011.
106. Dalal, Navneet, and Bill Triggs. "Histograms of Oriented Gradients for Human Detection." Conference on Computer Vision and Pattern Recognition, 2005.
107. Tuytelaars1, Tinne, and Krystian Mikolajczyk. *Local Invariant Feature Detectors: A Survey*. Foundations and Trends® in Computer Graphics and Vision (Vol 3, Issue 3, 2007, pp. 177-280).
108. Hartigan, J. A. *Clustering Algorithms*. New York: John Wiley, 1975.
109. Fischler, Martin A., and Robert C. Bolles. "Random Sample Consensus: A Paradigm for Model Fitting with Applications to Image Analysis and Automated Cartography." *Communications of the ACM Volume* 24, no. 6 (June 1981).
110. Sunglok Choi, Taemin Kim, and Wonpil Yu. "Performance Evaluation of RANSAC Family." British Machine Vision Association, (2009).
111. Hartigan, J. A., and M. A. Wong. "Algorithm AS 136: A K-Means Clustering Algorithm." *Journal of the Royal Statistical Society, Series C (Applied Statistics)* Vol. 28, No. 1 (1979, pp. 100-108).
112. Voronoi, Georgy. "Nouvelles applications des paramètres continus à la théorie des formes quadratiques." *Journal für die Reine und Angewandte Mathematik* 133 (1908).
113. Capel, David. "Random Forests and Ferns." Penn. State University Computer Vision Laboratory, seminar lecture notes online: [ForestsAndFernsTalk.pdf](#).

114. Xiaofeng Ren and Jitendra Malik. "Learning a Classification Model for Segmentation."
115. Lai, Kevin, Liefeng Bo, Xiaofeng Ren, and Dieter Fox. "Sparse Distance Learning for Object Recognition Combining RGB and Depth Information."
116. Xiaofeng Ren and Deva Ramanan. "Histograms of Sparse Codes for Object Detection." *Conference on Computer Vision and Pattern Recognition, 2013.*
117. Liefeng Bo, Xiaofeng Ren, and Dieter Fox. "Multipath Sparse Coding Using Hierarchical Matching Pursuit." *Conference on Computer Vision and Pattern Recognition, 2013.*
118. Herbst, Evan, Xiaofeng Ren, and Dieter Fox. "RGB-D Flow: Dense 3-D Motion Estimation Using Color and Depth." *IEEE International Conference on Robotics and Automation (ICRA) 2013.*
119. Xiaofeng Ren and Liefeng Bo. "Discriminatively Trained Sparse Code Gradients for Contour Detection." *Conference on Neural Information processing Systems, 2012.*
120. Rublee, Ethan, Vincent Rabaud, Kurt Konolige, and Gary Bradski. "ORB: An Efficient Alternative to SIFT or SURF." *ICCV '11 Proceedings of the 2011 International Conference on Computer Vision.*
121. Rosenfeld, A., and J. L Pfaltz. "Distance Functions on Digital Images." *Pattern Recognition, Pergamon Press 1968 Vol. 1 pp. 33-61.*
122. Richardson, Andrew, and Edwin Olson. "Learning Convolutional Filters For Interest Point Detection." *IEEE International Conference on Robotics and Automation ICRA'13, pages 631-637. IEEE, (2013).*
123. Moon, Todd K., and Wynn C. Stirling. *Mathematical Methods and Algorithms for Signal Processing.* Englewood Cliffs, NJ: Prentice-Hall, 1999.
124. Liefeng Bo, Xiaofeng Ren, and Dieter Fox. "Multipath Sparse Coding Using Hierarchical Matching Pursuit." *Conference on Computer Vision and Pattern Recognition, 2013.*
125. Xiaofeng Ren and Deva Ramanan. "Histograms of Sparse Codes for Object Detection." *Conference on Computer Vision and Pattern Recognition, 2013.*
126. Olshausen, B., and D. Field. "Emergence of Simple-cell Receptive Field Properties by Learning a Sparse Code for Natural Images." *Nature. 1996 Jun 13; 381(6583): 607-9.*
127. d'Angelo, Emmanuel, Alexandre Alahi, and Pierre Vandergheynst. "Beyond Bits: Reconstructing Images from Local Binary Descriptors." *Swiss Federal Institute of Technology, 21st International Conference on Pattern Recognition (ICPR), 2012.*
128. Dengsheng Zhang and Guojun Lu. "Review of Shape Representation and Description Techniques." *Journal of the Pattern Recognition Society, No. 37 (2004) 1-19.*
129. Yang Mingqiang, Kpalma Kidiyo, and Ronsin Joseph. "A Survey of Shape Feature Extraction Techniques." *Pattern Recognition (November 2008), pp. 43-90.*
130. Alahi, Alexandre, Raphael Ortiz, and Pierre Vandergheynst. "Freak: Fast Retina Keypoint." *Conference on Computer Vision and Pattern Recognition, 2012.*
131. Leutenegger, Stefan, Margarita Chli, and Roland Y. Siegwart. "BRISK: Binary Robust Invariant Scalable Keypoints." *International Conference on Computer Vision, 2011.*
132. Calonder, Michael, Vincent Lepetit, Christoph Strecha, and Pascal Fua. "BRIEF: Binary Robust Independent Elementary Features." *ECCV'10 Proceedings of the 11th European conference on Computer vision: Part IV 2010.*

133. Calonder, Michael et al. "BRIEF: Computing a Local Binary Descriptor Very Fast." *Pattern Analysis and Machine Intelligence*, Vol. 34 (2012).
134. Rublee, Ethan, Vincent Rabaud, Kurt Konolige, and Gary Bradski. "ORB: An Efficient Alternative to SIFT or SURF." *ICCV '11 Proceedings of the 2011 International Conference on Computer Vision* 2011.
135. von Hundelshausen, Felix, and Rahul Sukthankar. "D-Nets: Beyond Patch-Based Image Descriptors." Conference on Computer Vision and Pattern Recognition, 2012.
136. Krig, Scott. "RFAN Radial Fan Descriptors." Picture Center Imaging and Visualization System, White Paper Series, 1992.
137. Krig, Scott. "Picture Center Imaging and Visualization System." Krig Research White Paper Series, 1994.
138. Rosten, Edward, and Tom Drummond. "FAST Machine learning for High-speed Corner Detection." European Conference on Computer Vision, 2006.
139. Rosten, Edward, and Tom Drummond, "Fusing Points and Lines for High Performance Tracking." International Conference on Computer Vision, 2005.
140. Liefeng Bo, Xiaofeng Ren, and Dieter Fox. "Hierarchical Matching Pursuit for Image Classification: Architecture and Fast Algorithms." Conference on Neural Information Processing Systems, 2011.
141. Miksik, Ondrej, and Krystian Mikolajczyk. "Evaluation of Local Detectors and Descriptors for Fast Feature Matching." International Conference on Pattern Recognition, 2012.
142. Yoav Freund, Robert E Schapire, "A Decision-theoretic Generalization of On-line Learning and an Application to Boosting." *Journal of Computer and System Sciences Volume 55, Issue 1, August 1997, Pages 119-139.*
143. Gleason, Josh, BRISK (Presentation by Josh Gleason) at International Conference on Computer Vision, 2011.
144. Mikolajczyk, K., and C. Schmid. "A Performance Evaluation of Local Descriptors." *Pattern Analysis and Machine Intelligence, IEEE Transactions on (Volume: 27, Issue: 10) (2005).*
145. Gauglitz, Steffen, Tobias Höllerer, and Matthew Turk. "Evaluation of Interest Point Detectors and Feature Descriptors for Visual Tracking." *International Journal of Computer Vision* Volume 94 Issue 3, September 2011.
146. Viola and Jones. "Robust Real Time Face Detection." *International Journal of Computer Vision* Volume 57 Issue 2, May 2004.
147. Thevenaz, P., Urs E. Ruttimann, and M. Unser. "A Pyramid Approach to Subpixel Registration Based on Intensity." *IEEE Transactions on Image Processing* Volume 7 Issue 1 (1998).
148. Qi Tian and Michael N. Huhns. "Algorithms for Subpixel Registration." *Computer Vision, Graphics, and Image Processing* Vol. 35 (August 1986).
149. Jie Zhu and Lei Yang. "Subpixel Eye Gaze Tracking." Automatic Face and Gesture Recognition Conference, 2002.
150. Cheezum, Michael K., William F. Walker, and William H. Guilford. "Quantitative Comparison of Algorithms for Tracking Single Fluorescent Particles." *Biophysical Journal* Oct 2001; 81(4): 2378-2388.
151. Guizar-Sicairos, Manuel, Samuel T. Thurman, and James R. Fienup. "Efficient Subpixel Image Registration Algorithms." *Optics Letters, Vol. 33, Issue 2, pp. 156-158 (2008).*

152. Hadjidemetriou, E., M. D. Grossberg, and S. K. Nayar. "Multiresolution Histograms and their Use for Texture Classification." *International Workshop on Texture Analysis and Synthesis*, Volume 26 Issue 7 2003.
153. Mikolajczyk, K., et al. "A Comparison of Affine Region Detectors." Conference on Computer Vision and Pattern Recognition, 2006.
154. Canny, A. "Computational Approach to Edge Detection." *Transactions on Pattern Analysis and Machine Intelligence* 8, no. 6 (November 1986).
155. Gunn, Steve R. "Edge Detection Error in the Discrete Laplacian of Gaussian." *International Conference on Image Processing, ICIP 98. Proceedings. 1998 (Volume: 2)*.
156. Harris, C., and M. Stephens. "A Combined Corner and Edge Detector." *Proceedings of the 4th Alvey Vision Conference*, 1988.
157. Shi, J., and C. Tomasi. "Good Features to Track." Conference on Computer Vision and Pattern Recognition, 1994.
158. Turk, Matthew, and Alex Pentland. "Eigenfaces for Recognition." *Journal of Cognitive Neuroscience*, Vol. 3 No. 1, 1991 © MIT Media Lab, 1991.
159. "Haja, Andreas, Bernd Jahne, and Steffen Abraham. "Localization Accuracy of Region Detectors." IEEE CVPR 2008.
160. Bay, Herbert, Andreas Ess, Tinne Tuytelaars, and Luc Van Gool. "Speeded-Up Robust Features (SURF)." *Computer Vision and Image Understanding Volume 110, Issue 3, June 2008, Pages 346-359*.
161. Lowe, David G. "SIFT Distinctive Image Features from Scale-Invariant Keypoints." *International Journal of Computer Vision, Volume 60 Issue 2, November 2004 Pages 91-110 (2004)*.
162. Kadir, Timor, Andrew Zisserman, and Michael Brady. "An Affine Invariant Salient Region Detector." European Conference on Computer Vision, 2004.
163. Kadir, T., and J. M. Brady. "Scale, Saliency and Image Description." *International Journal of Computer Vision, Volume 45 Issue 2, November 2001 Pages 83-105*.
164. Smith, Stephen M. and J. Michael Brady. "SUSAN—A New Approach to Low Level Image Processing", Technical report TR95SMS1c (patented), Crown Copyright (1995), 1995, Defence Research Agency, UK.
165. Smith, Stephen M. and J. Michael Brady. "SUSAN—A New Approach to Low Level Image Processing, *International Journal of Computer Vision archive Volume 23 Issue 1, May 1997 Pages 45-78*.
166. Baohua Yuan, Honggen Cao, and Jiuliang Chu, "Combining Local Binary Pattern and Local Phase Quantization for Face Recognition." International Symposium on Biometrics and Security Technologies, 2012.
167. Ojansivu, Ville, and Janne Heikkil. "Blur Insensitive Texture Classification Using Local Phase Quantization." *Proceedings of Image and Signal Processing*, 2008.
168. Chan, C. H, M. A. Tahir, J. Kittler, and M. Pietikäinen. "Multiscale Local Phase Quantization for Robust Component-based Face Recognition Using Kernel Fusion of Multiple Descriptors. *PAMI (2012)*.
169. Ojala, T., M. Pietikäinen, and D. Harwood. "Performance Evaluation of Texture Measures with Classification Based on Kullback Discrimination of Distributions." *Proceedings of the International Conference on Pattern Recognition*, 1994.

170. Ojala, T., M. Pietikäinen, and D. Harwood. "A Comparative Study of Texture Measures with Classification Based on Feature Distributions." *Pattern Recognition* 29 (1996).
171. Pietikäinen, Matti, and Janne Heikkilä. "Tutorial on Image and Video Description with Local Binary Pattern Variants." Conference on Computer Vision and Pattern Recognition, 2011.
172. Shu Liao and Albert C. S. Chung. *Texture Classification by Using Advanced Local Binary Patterns and Spacial Distribution of Dominant Patterns*, IEEE International Conference on Acoustics, Speech and Signal Processing, 2007. ICASSP.
173. Pietikäinen, M., A. Hadid, G. Zhao, and T. Ahonen. *Computer Vision Using Binary Patterns*, Computational Imaging and Vision Series, vol. 40. New York: Springer, 2011.
174. Arandjelovi, Arandjelović, and Andrew Zisserman. "Three Things Everyone Should Know to Improve Object Retrieval." Conference on Computer Vision and Pattern Recognition, 2011.
175. Guoying Zhao, and Matti Pietikainen. "Dynamic Texture Recognition Using Local Binary Patterns with an Application to Facial Expressions." *Pattern Analysis and Machine Intelligence*, IEEE Transactions on (Volume: 29, Issue: 6) (2007).
176. Kellokumpu, Vili, Guoying Zhao, and Matti Pietikäinen. "Human Activity Recognition Using a Dynamic Texture Based Method." British machine Vision Conference 2008.
177. Zabih, Ramin, and John Woodfill. "Nonparametric Local Transforms for Computing Visual Correspondence." European Conference on Computer Vision, 1994.
178. Lowe, David G. "Object Recognition from Local Scale-Invariant Features." The Proceedings of the Seventh IEEE International Conference on Computer Vision, 1999.
179. Abdel-Hakim, Alaa E., and Aly A. Farag. "CSIFT: A SIFT Descriptor with Color Invariant Characteristics." Conference on Computer Vision and Pattern Recognition, 2006.
180. Vinukonda, Phaneendra. *A Study of the Scale-Invariant Feature Transform on a Parallel Pipeline*. Thesis project.
181. Alcantarilla, Pablo F., Luis M. Bergasa, and Andrew Davison. *Gauge-SURF Descriptors*: Elsevier, 2011.
182. Christopher Evans, "Notes on the OpenSURF Library", University of Bristol Technical Paper, January 18, 2009."
183. Yan Ke and Rahul Sukthankar. "PCA-SIFT: A More Distinctive Representation for Local Image Descriptors." Conference on Computer Vision and Pattern Recognition, 2004.
184. Gauglitz, Steffen, Tobias Höllerer, and Matthew Turka. "Evaluation of Interest Point Detectors and Feature Descriptors for Visual Tracking." *International Journal of Computer Vision*, Volume 94 2011.
185. Agrawal, Motilal, Kurt Konolige, and Morten Rufus Blas. "CenSurE: Center Surround Extremas for Realtime Feature Detection and Matching." European Conference on Computer Vision, 2008.
186. Viola, Paul, and Michael Jones. "Robust Real-time Object Detection." *International Journal of Computer Vision* 57(2):137-154 (2002).
187. Grigorescu, S. E., N. Petkov, and P. Kruizinga. "Comparison of Texture Features Based on Gabor Filters." *IEEE Transactions on Image Processing*, (Volume: 11, Issue: 10) 2002.
188. Alcantarilla, Pablo, Luis M. Bergasa, and Andrew Davison. *Gauge-SURF Descriptors*. IVC(31), No. 1, January 2013, pp. 103-116. Elsevier via DOI 1302.

189. Agrawal, M., K. Konolige, and M. R. Blas. "CenSurE: Center Surround Extremas for Realtime Feature Detection and Matching." European Conference on Computer Vision, 2008.
190. Morse, Bryan S. Lecture 11: Differential Geometry. Brigham Young University, 1998–2000. <http://morse.cs.byu.edu/650/lectures/lect10/diffgeom.pdf>.
191. Bosch, Anna, Andrew Zisserman, and Xavier Munoz. "Representing Shape with a Spatial Pyramid Kernel.," CIVR '07 Proceedings of the 6th ACM international conference on Image and video retrieval.
192. Rubner, Yossi, Carlo Tomasi, and Leonidas J. Guibas. "The Earth Mover's Distance as a Metric for Image Retrieval." *International Journal of Computer Vision* Volume 40 Issue 2, Nov. 2000 Pages 99–121.
193. Oliva, Aude, and Antonio Torralba. "Modeling the Shape of the Scene: A Holistic Representation of the Spatial Envelope." *International Journal of Computer Vision* (2001).
194. Matas, J., O. Chum, M. Urba, and T. Pajdla. "Robust Wide Baseline Stereo from Maximally Stable Extremal Regions." *Proceedings of British Machine Vision Conference, 2002*.
195. Scovanner, P., S. Ali, and M. Shah. "A 3-dimensional SIFT Descriptor and its Application to Action Recognition." ACM Proceedings of the 15th International Conference on Multimedia, pages 357–360. (2007).
196. Klaser, A., M. Marszalek, and C. Schmid. "A Spatio-temporal Descriptor Based on 3d-gradients." British Machine Vision Conference, 2008.
197. Laptev, I. "On Space-time Interest Points.:" *International Journal of Computer Vision* 64 (2005).
198. Oreifej, Omar, and Zicheng Liu. "HON4D: Histogram of Oriented 4D Normals for Activity Recognition from Depth Sequences." Conference on Computer Vision and Pattern Recognition, 2013.
199. Ke, Y., et al. "Efficient Visual Event Detection using Volumetric Features." International Conference on Computer Vision, 2005.
200. Zhang, Lisha, Manuel João da Fonseca, and Alfredo Ferreira. "Survey on 3D Shape Descriptors." *União Europeia - Fundos Estruturais Governo da República Portuguesa Referência: POSC/EIA/59938/2004*.
201. Tangelder, Johan W. H., and Remco C. Veltkamp. *A Survey of Content-based 3D Shape Retrieval Methods*. New York: Springer, 2007.
202. Heikkila, Marko, Matti Pietikäinen, and Cordelia Schmid. *Description of Interest Regions with Center-Symmetric Local Binary Patterns*. Computer Vision, Graphics and Image Processing Lecture Notes in Computer Science Volume 4338, 2006, pp. 58–69.
203. Schmidt, Adam, Marek Kraft, Michał Fularz, and Zuzanna Domagała. "The Comparison of Point Feature Detectors and Descriptors in the Context of Robot Navigation." Workshop on Perception for Mobile Robots Autonomy, 2012.
204. Bongjin Jun and Daijin Kim. "Robust Face Detection Using Local Gradient Patterns and Evidence Accumulation." *Pattern Recognition* Volume 45, Issue 9, September 2012, Pages 3304–3316.
205. Froba, Bernhard, and Andreas Ernst. "Face Detection with the Modified Census Transform." International Conference on Automatic Face and Gesture Recognition, 2004.
206. Freeman, H. "On the Encoding of Arbitrary Geometric Configurations." *IRE Transactions on Electronic Computers* (1961).

207. Salem, Abdel-Badeeh M., Adel A. Sewisy, and Usama A. Elyan. "A Vertex Chain Code Approach for Image Recognition." *International Journal on Graphics, Vision and Image Processing ICGST-GVIP*, 2005.
208. Kitchen, L., and A. Rosenfeld. "Gray-level Corner Detection." *Pattern Recognition Letters* Volume 1 (1992).
209. Koenderink, J., and W. Richards. "Two-dimensional Curvature Operators." *Journal of the Optical Society of America JOSA A*, Vol. 5, Issue 7, pp. 1136-1141 (1988).
210. Bretzner, L., and T. Lindeberg. "Feature Tracking with Automatic Selection of Spatial Scales." *Computer Vision and Image Understanding Volume 71, Issue 3, September 1998, Pages 385-392*.
211. Lindeberg, T. "Junction Detection with Automatic Selection of Detection Scales and Localization Scales." *Proceedings of First International Conference on Image Processing*, 1994.
212. Lindeberg, Tony. "Feature Detection with Automatic Scale Selection." *International Journal of Computer Vision November 1998, Volume 30, Issue 2, pp. 79-116*.
213. Wang, H., and M. Brady. "Real-time Corner Detection Algorithm for Motion Estimation." *Image and Vision Computing Volume 13, Issue 9, November 1995, pp. 695-703*.
214. Trajkovic, M., and M. Hedley. "Fast Corner Detection." *Image and Vision Computing Volume 16, Issue 2, 20 February 1998, Pages 75-87*.
215. Tola, E., V. Lepetit, and P. Fua. "DAISY: An Efficient Dense Descriptor Applied to Wide Baseline Stereo." *PAMI (Volume: 32, Issue: 5) 2010*.
216. Arbeiter, Georg, et al. "Evaluation of 3D Feature Descriptors for Classification of Surface Geometries in Point Clouds." *International Conference on Intelligent Robots and Systems (IROS), 2012 IEEE/RSJ*.
217. Rupell, A., F. Weisshardt, and A. Verl. "A Rotation Invariant Feature Descriptor O-DAISY and its FPGA Implementation." *IROS*, 2011.
218. Ambai, Mitsuru, and Yuichi Yoshida. "CARD: Compact and Real-time Descriptors." *International Conference on Computer Vision*, 2011.
219. Takacs, Gabriel, et al. "Unified Real-Time Tracking and Recognition with Rotation-Invariant Fast Features. Conference on Computer Vision and Pattern Recognition, 2010.
220. Taylor, Simon, Edward Rosten, and Tom Drummond. "Robust Feature Matching in 2.3 μ s." *Conference on Computer Vision and Pattern Recognition*, 2009.
221. Grauman, Kristen, and Trevor Darrell. "The Pyramid Match Kernel: Discriminative Classification with Sets of Image Features." *IEEE International Conference on Computer Vision, 2005. ICCV 2005. Tenth (Volume: 2)*.
222. Takacs, Gabriel, et al. "Unified Real-Time Tracking and Recognition with Rotation-Invariant Fast Features. Conference on Computer Vision and Pattern Recognition, 2010.
223. Chandrasekhar, Vijay, et al. "CHOg: Com-pressed Histogram of Gradients, a Low Bitrate Descriptor. Conference on Computer Vision and Pattern Recognition, 2009.
224. Mainali, Gauthier Lafruit, et al. "SIFER: Scale-Invariant Feature Detector with Error Resilience." *International Journal on Computer Vision* (2013).
225. Fowers, Spencer G., D. J. Lee, Dan Ventura, and Doran K. Wilde. "A Novel, Efficient, Tree-Based Descriptor and Matching Algorithm (BASIS)." *Conference on Computer Vision and Pattern Recognition*, 2012.

226. Fowers, S. G., D. J. Lee, D.A. Ventura, and J. K. Archibald. "Nature Inspired BASIS Feature Descriptor and its Hardware Implementation." *IEEE Transactions on Circuits and Systems for Video Technology*, 2012.
227. Bracewell, Ronald. *The Fourier Transform & Its Applications*, McGraw-Hill Science/Engineering/Math; 3 edition (June 8, 1999).
228. Duda, R. O., and P. E. Hart. "Use of the Hough Transformation to Detect Lines and Curves in Pictures." *Communications of the ACM* January 1972.
229. Ballard, D. H. "Generalizing the Hough Transform to Detect Arbitrary Shapes." *Pattern Recognition* 13, no. 2 (1981).
230. Illingsworth, J., and K. Kitter. "A Survey of the Hough Transform." *Computer Vision, Graphics and Image Processing* (1988).
231. Slaton, Gerard, and Michael J. MacGill. *Introduction to Modern Information Retrieval*. New York: McGraw-Hill, 1983.
232. Niebles, Juan Carlos, Hongcheng Wang, and Li Fei-Fei. "Unsupervised Learning of Human Action Categories Using Spatial-Temporal Words." *International Journal of Computer Vision* (2008).
233. Bosch, Anna, Andrew Zisserman, and Xavier Muñoz. "Scene Classification via pLSA." European Conference on Computer Vision, 2006.
234. Csurka, G., C. Bray, C. Dance, and L. Fan. "Visual Categorization with Bags of Key-points." SLCV workshop, European Conference on Computer Vision, 2004.
235. Dean, Thomas, Rich Washington, and Greg Corrado, "Sparse Spatiotemporal Coding for Activity Recognition." Brown University Tech. Report, 2010.
236. Quoc V. Le, Will Y. Zou, Serena Y. Yeung, and Andrew Y. Ng, "Learning Hierarchical Invariant Spatio-temporal Features for Action Recognition with Independent Subspace Analysis." Conference on Computer Vision and Pattern Recognition, 2011.
237. Olshausen, B., and D. Field. "Emergence of Simple-cell Receptive Field Properties by Learning a Sparse Code for Natural Images." *Nature* 381, 607-609 (13 June 1996).
238. Belongie, Serge, Jitendra Malik, and Jan Puzicha. "Matching with Shape Context." *CBAIVL '00 Proceedings of the IEEE Workshop on Content-based Access of Image and Video Libraries*.
239. Belongie, Serge, Jitendra Malik, and Jan Puzicha. "Shape Context: A New Descriptor for Shape Matching and Object Recognition." Conference on Neural Information processing Systems, 2000.
240. Belongie, Serge, Jitendra Malik, and Jan Puzicha. "Shape Matching and Object Recognition Using Shape Contexts." *PAMI (Volume: 24, Issue: 4)* (2002).
241. Belongie, Serge, Jitendra Malik, and Jan Puzich. "Matching Shapes with Shape Context." *CBAIVL '00 Proceedings of the IEEE Workshop on Content-based Access of Image and Video Libraries*.
242. Liefeng Bo, Xiaofeng Ren, and Dieter Fox. "Unsupervised Feature Learning for RGB-D Based Object Recognition." *ISER, volume 88 of Springer Tracts in Advanced Robotics, pages 387-402. Springer, (2012)*.
243. Loy, Gareth, and Alexander Zelinsky. "A Fast Radial Symmetry Transform for Detecting Points of Interest." European Conference on Computer Vision, 2002.
244. Wolf, Lior, Tal Hassner, and Yaniv Taigman. "Descriptor Based Methods in the Wild." European Conference on Computer Vision, 2008.
245. Kurz, Daniel, and Selim Ben Himane. "Inertial Sensor-aligned Visual Feature Descriptors." Conference on Computer Vision and Pattern Recognition, 2011.

246. Kingsbury, Nick. "Rotation-Invariant Local Feature Matching with Complex Wavelets." *Proc. European Conf. Signal Processing (EUSIPCO)*, 2006.
247. Dinggang Shen, and Horace H. S. Ip. "Discriminative Wavelet Shape Descriptors for Recognition of 2-D Patterns." *Pattern Recognition Volume 32, Issue 2, February 1999, Pages 151-165*.
248. Edelman, S., N. Intrator, and T. Poggio. "Complex Cells and Object Recognition." Conference on Neural Information Processing Systems, 1997.
249. Hunt, R. W. G., and M. R. Pointer. *Measuring Colour*. Hoboken, NJ: John Wiley, 2011.
250. Hunt, R. W. G. *The Reproduction of Color, Wiley; 6 edition (October 29, 2004)*.
251. Berns, Roy S. *Billmeyer and Saltzman's Principles of Color Technology*. Hoboken, NJ: John Wiley, 2000.
252. Morovic, Jan. *Color Gamut Mapping*. Hoboken, NJ: John Wiley, 2008.
253. Fairchild, Mark. *Color Appearance Models*. Addison Wesley Longman; 1st edition (January 1998).
254. Ito, Masayasu, Masayoshi Tsubai, and Akira Nomura. "Morphological Operations by Locally Variable Structuring Elements and Their Applications to Region Extraction in Ultrasound Images." *Systems and Computers in Japan Volume 34, Issue 3, pages 33-43, March 2003*.
255. Tsubai, Masayoshi, and Masayasu Ito. "Control of Variable Structure Elements in Adaptive Mathematical Morphology for Boundary Enhancement of Ultrasound Images." *ELECTRONICS AND COMMUNICATIONS IN JAPAN PART 3 FUNDAMENTAL ELECTRONIC SCIENCE; 87, 11; 20-33*.
256. Mazille, J. E. "Mathematical Morphology and Convolutions." *Journal of Microscopy* Vol. 156, (1989).
257. Achanta, Radhakrishna, et al. "SLIC Superpixels Compared to State-of-the-art Superpixel Methods." *PAMI (vol. 34 no. 11)* (2012).
258. Achanta, Radhakrishna, et al. "SLIC Superpixels." EPFL technical report no. 149300, June 2010.
259. Felzenszwalb, P., and D. Huttenlocher. "Efficient Graph-based Image Segmentation." *International Journal of Computer Vision* (2004).
260. Levinshstein, A., et al. "Turbopixels: Fast Superpixels Using Geometric Flows." *PAMI* (2009).
261. Lucchi, A., et al. "A Fully Automated Approach to Segmentation of Irregularly Shaped Cellular Structures in EM Images." MICCAI, 2010.
262. Shi, J., and J. Malik. "Normalized Cuts and Image Segmentation." *PAMI* (2000).
263. Vedaldi, A., and S. Soatto. "Quick Shift and Kernel Methods for Mode Seeking." European Conference on Computer Vision, 2008.
264. Felzenszwalb, Pedro F., and Daniel P. Huttenlocher. "Efficient Graph-Based Image Segmentation." *International Journal of Computer Vision September 2004, Volume 59, Issue 2, pp. 167-181*.
265. Felzenszwalb, P., and D. Huttenlocher. "Efficient Graph-based Image Segmentation." *International Journal of Computer Vision* Volume 59 (2004).
266. Comaniciu, D., and P. Meer. "Mean Shift: A Robust Approach Toward Feature Space Analysis." *PAMI* (Volume: 24, Issue: 5) (2002).
267. Vedaldi, A., and S. Soatto. "Quick Shift and Kernel Methods for Mode Seeking." European Conference on Computer Vision, 2008.
268. Vincent, L., and P. Soille. "Watersheds in Digital Spaces: An Efficient Algorithm Based on Immersion Simulations." *PAMI Volume 13 Issue 6, June 1991*.

269. Levinshtein, A., et al. "Turbopixels: Fast Superpixels Using Geometric Flows." *PAMI December 2009 (vol. 31 no. 12)*.
270. Scharstein, D., and C. Pal. "Learning Conditional Random Fields for Stereo." Conference on Computer Vision and Pattern Recognition, 2007.
271. Hirschmüller, H., and D. Scharstein. "Evaluation of Cost Functions for Stereo Matching." Conference on Computer Vision and Pattern Recognition, 2007.
272. Goodman, J. W. *Introduction to Fourier Optics*. New York: McGraw-Hill, 1968.
273. Gaskill, J. D. *Linear Systems, Fourier Transforms, Optics*. Hoboken, NJ: John Wiley, 1978.
274. Thibos, L., R. A. Applegate, J. T. Schweigerling, and R. Webb. "Standards for Reporting the Optical Aberrations of Eyes." In *OSA Trends in Optics and Photonics, Vision Science and its Applications*, ed. V. Lakshminarayanan. Washington, DC: Optical Society of America, 2000.
275. Sun-Kyoo Hwang and Whoi-Yul Kim. "A Novel Approach to the Fast Computation of Zernike Moments." *Pattern Recognition* Vol. 39 (2006).
276. Khotanzad, Alireza and Yaw Hua Hong. "Invariant Image Recognition by Zernike Moments." *PAMI* Vol. 12 (1990).
277. Chao Kan, Mandyam, and D. Srinath. "Invariant Character Recognition with Zernike and Orthogonal Fourier-Mellin Moments." *Pattern Recognition Volume 35, January 2002*,
278. Hyung Shin Kim, and Heung-Kyu Lee. "Invariant Image Watermark Using Zernike Moments." *IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS FOR VIDEO TECHNOLOGY, VOL. 13, NO. 8, AUGUST 200* (2003).
279. Papakostas, G. A., D. A. Karras, and B. G. Mertzios. "Image Coding Using a Wavelet Based Zernike Moments Compression Technique." In proceeding of: Digital Signal Processing, 2002. Volume: 2 DSP (2002).
280. Mukundan, R. and K. R. Ramakrishnan. "Fast Computation of Legendre and Zernike Moments." *Volume 28, Issue 9, September 1995, Pages 1433-1442*
281. Yongqing Xin, Miroslaw Pawlak, and Simon Liao. "Image Reconstruction with Polar Zernike Moments." *ICAPR'05 Proceedings of the Third international conference on Pattern Recognition and Image Analysis - Volume Part II 2005*.
282. Singh, Chandan, and Rahul Upneja. "Fast and Accurate Method for High Order Zernike Moments Computation." *Applied Mathematics and Computation Volume 218, Issue 15, 1 April 2012, Pages 7759-7773*.
283. Pratt, W., Wen-Hsiung Chen, and L. Welch. "Slant Transform Image Coding." *IEEE Transactions On Communications (Volume: 22, Issue: 8) 1974*.
284. Enomoto, H., and K. Shibata. "Orthogonal Transform Coding System for Television Signals." *IEEE Trans. on Electromagnetic Compatibility, (Volume: EMC-13, Issue: 3) 1974*.
285. Dutra da Silva, Ricardo, William Robson, and Helio Pedrini Schwartz. "Image Segmentation Based on Wavelet Feature Descriptor and Dimensionality Reduction Applied to Remote Sensing." *Chilean Journal of Statistics Vol. 2* (2011).
286. Arun, Nerella, Mani Kumar, and P. S. Sathidevi. "Wavelet SIFT Feature Descriptors for Robust Face Recognition." *Springer Advances in Intelligent Systems and Computing* Vol. 177 (2013).
287. Dinggang Shen, and Horace H. S. Ip, "Discriminative Wavelet Shape Descriptors for Recognition of 2-D Patterns." *Pattern Recognition* Vol. 32 (1999).

288. Kingsbury, Nick. "Rotation-Invariant Local Feature Matching with Complex Wavelets." Proc. European Conf. Signal Processing EUSIPCO, 2006.
289. Wolfram Research Mathematica Wavelet Analysis Libraries.
290. Strang, Gilbert. "Wavelets." *American Scientist* 82, no. 3 (May-June 1994).
291. Mallat, Stephane. *A Wavelet Tour of Signal Processing: The Sparse Way*, 3rd ed.: Elsevier, 2008.
292. Percival, Donald B., and Andrew T. Walden. *Wavelet Methods for Time Series Analysis*. Cambridge: Cambridge University Press, 2006.
293. Gabor, D."Theory of Communication." *Journal of the IEE* 93 (1946).
294. Minor, L. G., and J. Sklansky. "Detection and segmentation of Blobs in Infrared Images." *IEEE Transactions on Systems Man and Cybernetics (Vol. 11 Issue 3)* (1981).
295. van Ginkel, M., C. K. Luengo Hendriks, and L. J. van Vliet. "A Short Introduction to the Radon and Hough Transforms and How They Relate to Each Other." *Number QI-2004-01 in the Quantitative Imageing Group Technical Report Series 2004*.
296. Toft, P. A. "Using the Generalized Radon Transform for Detection of Curves in Noisy Images." 1996 *IEEE International Conference on Acoustics, Speech, and Signal Processing, 1996. ICASSP-96. Conference Proceedings., (Volume: 4)*.
297. J. Radon. "Über die Bestimmung von Funktionen durch ihre Integralwerte längs gewisser Mannigfaltigkeiten." *Berichte Sächsische Akademie der Wissenschaften, Leipzig, Mathematisch-Physikalische Klasse* 69 (1917).
298. Fung, James, Steve Mann, and Chris Aimone. "OpenVIDIA: Parallel GPU Computer Vision." *Proceedings of the ACM Multimedia, 2005*.
299. Bazin, M. J., and J. W. Benoit. "Off-line Global Approach to Pattern Recognition for Bubble Chamber Pictures." *Transactions on Nuclear Science* 12 (August 1965).
300. Deans, S. R. "Hough Transform from the Radon Transform." *Transactions on Pattern Analysis and Machine Intelligence* 3, no. 2 (March 1981).
301. Rosenfeld, A. *Digital Picture Processing by Computer*. New York: Academic Press, 1982.
302. Tomasi, C., and R. Manduchi. "Bilateral Filtering for Gray and Color Images." *ICCV '98 Proceedings of the Sixth International Conference on Computer Vision* (1998).
303. See the documentation for the Imagej, Imagej2 or Fiji software package for complete references to each method, [global] Auto Threshold command and Auto Local Threshold command. <http://fiji.sc/ImageJ2>.
304. Garg, Rajesh, Bhawna Mittal, and Sheetal Garg. "Histogram Equalization Techniques for Image Enhancement." *IJECT, International Journal of Electronics And Communications Technology* Vol. 2 (2011).
305. Sung, A. Pearce, and C. Wang. "Spatial-temporal Antialiasing." *Transactions on Visualization and Computer Graphics* Vol. 8 (2002).
306. Mikolajczyk, Krystian, and Cordelia Schmid. "Scale & Affine Invariant Interest Point Detectors." *International Journal of Computer Vision* Vol. 60 (2004).
307. Ozuysal, Mustafa, Michael Calonder, Vincent Lepetit, and Pascal Fua. "Fast Keypoint Recognition Using Random Ferns." *PAMI* Volume 32 (2010).
308. Schaffalitzky, F., and A. Zisserman. "Automated Scene Matching in Movies." *CIVR 2004, In Proceedings of the Challenge of Image and Video Retrieval, London, LNCS 2383*.

309. Tola, E., V. Lepetit, and P. Fua. "A Fast Local Descriptor for Dense Matching." Conference on Computer Vision and Pattern Recognition, 2008.
310. Davis, L. S. "Computing the Spatial Structures of Cellular Texture." *Computer Graphics and Image Processing* 11, no. 2 (October 1979).
311. Pun, C. M., and M. C. Lee. "Log-polar Wavelet Energy Signatures for Rotation and Scale Invariant Texture Classification." *Transactions of Pattern Analysis and Machine Intelligence* 25, no. 5 (May 2003).
312. Spence, A., M. Robb, M. Timmins, and M. Chantler. "Real-time Per-Pixel Rendering of Textiles for Virtual Textile Catalogues." *Proceedings of INTEDEC*, 2003.
313. Lam, Stephen W. C., and Horace H. S. Ip. *Adaptive Pyramid Approach to Texture Segmentation*. Computer Analysis of Images and Patterns Lecture Notes in Computer Science Volume 719, 1993, pp. 267–274.
314. Yinpeng Jin, Laura Fayad, and Andrew Laine. "Contrast Enhancement by Multi-scale Adaptive Histogram Equalization." *Proceedings of SPIE*, vol. 4478 2001.
315. Jianguo Zhang and Tieniu Tan. "Brief Review of Invariant Texture Analysis Methods." *Pattern Recognition Vol. 35* (2002).
316. Tomita, Fumiaki, Yoshiaki Shirai, and Saburo Tsuji. "Description of Textures by a Structural Analysis." *IEEE Transactions on Pattern Analysis and Machine Intelligence* archive Volume 4 *PAMI* (1982).
317. Tomita, Fumiaki, and Saburo Tsuji. *Computer Analysis of Visual Textures*. New York: Springer, 1990.
318. Burt, Peter J., and Edward H. Adelson. "The Laplacian Pyramid as a Compact Image Code." *IEEE Transactions on Communications* (1983).
319. Otsu, Nobuyuk. "A Threshold Selection Method from Gray-level Histograms." *IEEE Transactions on Systems, Man and Cybernetics* 9(1):62–66 *TSMC* (1979).
320. Sezgin, M., and B. Sankur. "Survey over Image Thresholding Techniques and Quantitative Performance Evaluation." *SPIE Journal of Electronic Imaging* (2004).
321. Haralick, Robert M., and Linda G. Shapiro. "Image Segmentation Techniques." *Computer Vision, Graphics, and Image Processing Volume 29, 1985, Pages 100–132*.
322. Raja, Yogesh, and Shaogang Gong. "Sparse Multiscale Local Binary Patterns," *British Machine Vision Conference 2006*
323. Fleuret, F. "Fast Binary Feature Selection with Conditional Mutual Information." *Journal of Machine Learning Research* Volume 5, 12/1/2004 (2004).
324. Szelinski, Richard. *Computer Vision, Algorithms and Applications*. New York: Springer, 2011.
325. Pratt, William K. *Digital Image Processing: PIKS Scientific Inside., Wiley-Interscience; 4 edition (February 9, 2007)*.
326. Russ, John C. *The Image Processing Handbook*, CRC Press; 5 edition (December 19, 2006).
327. Klein, Georg, and David Murray. "Parallel Tracking and Mapping for Small AR Workspaces." *IMAR*, 2007.
328. Newcombe, Richard A., et al. "KinectFusion: Real-Time Dense Surface Mapping and Tracking." *ISMAR '11 Proceedings of the 2011 10th IEEE International Symposium on Mixed and Augmented Reality* (October 2011).
329. Izadi, Shahram, et al. "KinectFusion: Real-time 3D Reconstruction and Interaction Using a Moving Depth Camera." *ACM Symposium on User Interface Software and Technology*, October 2011.

330. Moravec, H. "Obstacle Avoidance and Navigation in the Real World by a Seeing Robot Rover." Tech Report CMU-RI-TR-3, Robotics Institute, Carnegie-Mellon University, 1980.
331. Mikolajczyk, K., and C. Schmid. "Indexing Based on Scale Invariant Interest Points." International Conference on Computer Vision, 2001.
332. Turcot, Panu, and David G. Lowe. "Better Matching with Fewer Features: The Selection of Useful Features in Large Database Recognition Problems." International Conference on Computer Vision, 2009.
333. Feichtinger, Hans G., and Thomas Strohmer. *Gabor Analysis and Algorithms*. Birkhäuser; 1997 edition (December 18, 1997).
334. Ricker, Norman. "Wavelet Contraction, Wavelet Expansion, and the Control of Seismic Resolution." *Geophysics*, v. 18, pp. 769–792, (1953).
335. Goshtasby, Ardesby. "Description and Discrimination of Planar Shapes Using Shape Matrices." *PAMI Volume 7 Issue 6, June 1985*.
336. Vapnik, V. N., E. Levin, and Y. LeCun, "Measuring the Dimension of a Learning Machine." *Neural Computation* September 1994, Vol. 6, No. 5, Pages 851–876.
337. Cowan, J. D., G. Tesauro, and J. Alspecter. "Learning Curves: Asymptotic Values and Rate of Convergence." *Advances in Neural Information Processing Vol. 6* (1994).
338. Vapnik, V. N. *The Nature of Statistical Learning Theory*. New York: Springer, 1995.
339. LeCun, Y., L. Bottou, Y. Bengio, and P. Haffner. *Gradient-Based Learning Applied to Document Recognition: Intelligent Signal Processing*, Proceedings of the IEEE, 86(11): 2278-2324, November 1998.
340. Krizhevsky, Alex, Ilya Sutskever, and E. Hinton. "ImageNet Classification with Deep Convolutional Neural Networks." Conference on Neural Information Processing Systems, 2012.
341. Boser, Bernhard E. Isabelle M. Guyon, and Vladimir N. Vapnik. "A Training Algorithm for Optimal Margin Classifiers." COLT '92 Proceedings of the fifth annual workshop on Computational learning theory, 1992.
342. Cortes, Corinna, and Vladimir N. Vapnik. "Support-Vector Networks." *Machine Learning* 20 (1995).
343. Burges, Christopher J. C. "A Tutorial on Support Vector Machines for Pattern Recognition." *Kluwer Data Mining and Discovery* Vol. 2 (1998).
344. Weinzaepfel, P., J. Revaud, Z. Harchaoui, and C. Schmid. "DeepFlow: Large Displacement Optical Flow with Deep Matching." International Conference on Computer Vision, 2013.
345. Keysers, T., C. Deselaers, Gollan, and H. Ney. "Deformation Models for Image Recognition." *Transactions of PAMI* Vol. 20 (2007).
346. Kim, J., C. Liu, F. Sha, and K. Grauman. "Deformable Spatial Pyramid Matching for Fast Dense Correspondences." *Conference on Computer Vision and Pattern Recognition, 2013*.
347. Boureau, Y-Lan, Jean Ponce, and Yann LeCu. "A Theoretical Analysis of Feature Pooling in Visual Recognition." *IML, 2010. 27TH INTERNATIONAL CONFERENCE ON MACHINE LEARNING, HAIFA, ISRAEL*.
348. Schmid, Cordelia, and Roger Mohr. "Object Recognition Using Local Characterization and Semi-local Constraints." *PAMI Volume 19, Number 3* 1997.
349. Ferrari, Vittorio, Tinne Tuytelaars, and Luc Van Gool. "Simultaneous Object Recognition and Segmentation from Single or Multiple Model Views." *International Journal of Computer Vision* Vol. 67 (2005).

350. Schaffalitzky, Frederik, and Andrew Zisserman. "Automated Scene Matching in Movies." CIVR, 2002.
351. Estivill-Castro, Vladimir. "Why So Many Clustering Algorithms—A Position Paper." ACM SIGKDD Explorations Newsletter Vol. 4 Issue 1, June 2002.
352. Kriegel, Hans-Peter, Peer Kröger, Jörg Sander, and Arthur Zimek. "Density-based Clustering." *Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery Volume 1, Issue 3, pages 231–240, May/June 2011.*
353. Hartigan, J. A. *Clustering Algorithms*. Hoboken, NJ: John Wiley, 1975.
354. Hartigan, J. A., and M. A. Wong. "Algorithm AS 136: A K-Means Clustering Algorithm." *Journal of the Royal Statistical Society* Vol. 28, No. 1 (1979).
355. Hastie, Trevor, Robert Tibshirani, and Jerome Friedman. *Hierarchical Clustering: The Elements of Statistical Learning*, 2nd ed. New York: Springer, 2009.
356. Dempster, A.P., N. M. Laird, and D. B. Rubin. "Maximum Likelihood from Incomplete Data via the EM Algorithm." *Journal of the Royal Statistical Society Series B* 39(1): 1–38 (1977).
357. Pearson, K. "On Lines and Planes of Closest Fit to Systems of Points in Space." *Philosophical Magazine* (1901).
358. Hotelling, H. "Relations between Two Sets of Variates." *Biometrika* (1936) 28 (3–4): 321–377.
359. Cortes, Corinna, and Vladimir N. Vapnik. "Support-Vector Networks." *Machine Learning* September 1995, Volume 20, Issue 3, pp. 273–297.
360. Haykin, S. *Neural Networks: A Comprehensive Foundation*, 2nd ed. Englewood Cliffs, NJ: Prentice-Hall, 1999.
361. Vapnik, V. *Statistical Learning Theory*. Hoboken, NJ: John Wiley, 1998.
362. Hofmann, Thomas, Bernhard Scholkopf, and Alexander J. Smola. "Kernel Methods in Machine Learning." *The Annals of Statistics* Volume 36, Number 3 (2008), 1031 (2008).
363. Raguram, Rahul, Jan-Michael Frahm, and Marc Pollefeys. "A Comparative Analysis of RANSAC Techniques Leading to Adaptive Real-Time Random Sample Consensus." European Conference on Computer Vision, 2008.
364. Weinberger, Kilian Q., John Blitzer, and Lawrence K. Saul. "Distance Metric Learning for Large Margin Nearest Neighbor Classification." Conference on Neural Information Processing Systems, 2004.
365. Schmid, Cordelia, and Roger Mohr. "Local Gray Value Invariants for Image Retrieval." *PAMI* Vol. 19, No. 5. (1997).
366. Dork, Gyuri, and Cordelia Schmid. "Object Class Recognition Using Discriminative Local Features." *Technical Report RR-5497, INRIA - Rhone-Alpes - February 2005.*
- 367-376. Not used.
377. Scholkopf, Bernhard, and Alexander J. Smola. *Learning with Kernels: Support Vector Machines, Regularization, Optimization, and Beyond*. Cambridge, MA: MIT Press, 2001.
378. Ferrari, Vittorio, Tinne Tuytelaars, and Luc Van Gool. "Simultaneous Object Recognition and Segmentation from Single or Multiple Model Views." *International Journal of Computer Vision* Vol. 67, No. 2 (2006).
379. Cinbis, Ramaqzan Gokberk, Jakob Verbeek, and Cordelia Schmid. "Segmentation Driven Object Detection with Fisher Vectors." International Conference on Computer Vision, 2013.
380. Fischler, M., and R. Bolles. "Random Sample Consensus: A Paradigm for Model Fitting with Applications to Image Analysis and Automated Cartography." *Communications of the ACM* Volume 24 Issue 6, June 1981 (1981).

381. Freund, Yoav, and Robert E. Schapire. "A Short Introduction to Boosting." Japanese Society for Artificial Intelligence, Vol. 14, No. 5. (1999).
382. Freund, Yoav, and and Robert E. Schapire. "A Decision-theoretic Generalization of On-line Learning and an Application to Boosting." *Journal of Computer and System Sciences Volume 55, Issue 1, August 1997, Pages 119–139.*
383. Heckerman, David. "A Tutorial on Learning with Bayesian Networks." Microsoft Research technical report, 1996.
384. Amit, Y., and D. Geman. "Shape Quantization and Recognition with Randomized Trees." *Neural Computation Volume 9 Issue 7, Oct. 1, (1997).*
385. Rabiner, L. R., and B. H. Juang. "An Introduction to Hidden Markov Models." *IEEE Acoustics, Speech, and Signal Processing magazine (ASSP 1986).*
386. Krogh A, B. Larsson, G. von Heijne, and E. L. Sonnhammer. "Predicting Transmembrane Protein Topology with a Hidden Markov Model: Application to Complete Genomes." *Journal of Molecular Biology (2001).*
387. Nister, David, and Henrik Stewenius. "Scalable Recognition with a Vocabulary Tree." Conference on Computer Vision and Pattern Recognition, 2006.
388. Freeman, William T., and Edward H. Adelson. "The Design and Use of Steerable Filters." *PAMI Volume 13 Issue 9 (1991).*
389. Leung, T., and J. Malik. "Representing and Recognizing the Visual Appearance of Materials Using Three-dimensional Textons." *International Journal of Computer Vision Volume 43 Issue 1 (2001).*
390. Schmid, C. "Constructing Models for Content-based Image Retrieval." Conference on Computer Vision and Pattern Recognition, 2001.
391. Alahi, Alexandre, Pierre Vanderghenst, Michel Bierlaire, and Murat Kunt. "Cascade of Descriptors to Detect and Track Objects Across Any Network of Cameras." *Computer Vision and Image Understanding Volume 114, Issue 6, June 2010, Pages 624–640 (2010).*
392. Simard, Patrice, Léon Bottou, Patrick Haffner, and Yann LeCun. "Boxlets: A Fast Convolution Algorithm for Signal Processing and Neural Networks." Conference on Neural Information Processing Systems, 1999.
393. Vedaldi, Andrea, and Andrew Zisserman. "Efficient Additive Kernels via Explicit Feature Maps." *PAMI Volume 34 Issue 3 (2012).*
394. Brox, Thomas, and Jitendra Malik. "Large Displacement Optical Flow: Descriptor Matching in Variational Motion Estimation." *PAMI (Vol. 33 No. 3) (2010).*
395. Martin Ester, Hans-Peter Kriegel, Jörg Sander, Xiaowei Xu. "A Density-Based Algorithm for Discovering Clusters in Large Spatial Databases with Noise." *In Second International Conference on Knowledge Discovery and Data Mining (1996), pp. 226–231.*
396. Mihael Ankerst, Markus M. Breunig, Hans-Peter Kriegel, Jorg Sander "OPTICS: Ordering Points to Identify the Clustering Structure." SIGMOD '99 Proceedings of the 1999 ACM SIGMOD international conference on Management of data.
397. Muja, Marius, Radu Bogdan Rusu, Gary Bradski, and David G. Lowe. "REIN - A Fast, Robust, Scalable Recognition Infrastructure." International Conference on Robotics and Automation, 2011.
398. Rusu, R. B., G. Bradski, R. Thibaux, and J. Hsu. "Fast 3D Recognition and Pose Using the Viewpoint Feature Histogram." *Intelligent Robots and Systems (IROS), 2010.*

399. Alvaro Collet, Manuel Martinez, and Siddhartha S. Srinivasa. "MOPED: A Scalable and Low Latency Object Recognition and Pose Estimation System." International Conference on Robotics and Automation, 2010.
400. Jacob, M., and M. Unser. "Design of Steerable Filters for Feature Detection Using Canny-Like Criteria." *PAMI* vol. 26, no. 8 (2004).
401. Moré, Jorge J. "The Levenberg-Marquardt Algorithm Implementation and Theory." *Numerical Analysis Lecture Notes in Mathematics Volume 630, 1978, pp. 105-116.*
402. Lecun, Yann. "Learning Invariant Feature Hierarchies." *European Conference on Computer Vision, 2012.*
403. Ranzato, Marc'Aurelio, Fu-Jie Huang, Y-Lan Boreau, and Yann Le Cun. "Unsupervised Learning of Invariant Feature Hierarchies with Applications to Object Recognition." Conference on Computer Vision and Pattern Recognition, 2007.
404. Boureau, Y-Lan, Jean Ponce, and Yann LeCun. "A Theoretical Analysis of Feature Pooling in Vision Algorithms." International Conference on Machine Learning, 2010.
405. Kingma, Diederik, and Yann LeCun. "Regularized Estimation of Image Statistics by Score Matching." Conference on Neural Information Processing systems, 2010.
406. Losson, O., L. Macaire, and Y. Yang. "Comparison of Color Demosaicing Methods." *Advances in Imaging and Electron Physics Volume 162, 2010, Pages 173-265.*
407. Xin Li, Bahadir Gunturk, and Lei Zhang. "Image Demosaicing: A Systematic Survey." *Proc. SPIE 6822, Visual Communications and Image Processing 2008, 68221J (2008).*
408. Tanbakuchi, Anthony A. et al. "Adaptive Pixel Defect Correction." *Proc. SPIE 5017, Sensors and Camera Systems for Scientific, Industrial, and Digital Photography Applications IV, (16 May 2003).*
409. Ibenthal, Achim. "Image Sensor Noise Estimation and Reduction." ITG Fachausschuss 3.2 "Digitale Bildcodierung" (2007).
410. An Objective Look at FSI and BSI, Aptina White Paper.
411. Cossairt, O., D. Miao, and S. K. Nayar. "Gigapixel Computational Imaging." ICCP, IEEE International Conference on Computational Photography (2011).
412. Eastman Kodak Company, "E-58 Technical Data / Color Negative Film." Kodak 160NC Technical Data Manual July 2000.
413. Kuthirummal, S., and S. K. Nayar. "Multiview Radial Catadioptric Imaging for Scene Capture." *ACM Trans. on Graphics (also Proc. of ACM SIGGRAPH), Jul, 2006.*
414. Zhou, C., and S. K. Nayar. "Computational Cameras: Convergence of Optics and Processing." *IEEE Transactions on Image Processing, Vol. 20, No. 12, Dec, 2011.*
415. Krishnan, G., and S. K. Nayar. "Towards A True Spherical Camera." *Proc. SPIE 7240, Human Vision and Electronic Imaging XIV, 724002 (28 January 2009).*
416. Reinhard, Heidrich, Pattanaik Debevec, Myszkowski Ward, and Morgan Kaufmann. "High Dynamic Range Imaging, 2nd Edition Acquisition, Display, and Image-Based Lighting." *Morgan Kaufmann; 2 edition (June 8, 2010).*
417. Gallo, Orazio, et al. "Artifact-free High Dynamic Range Imaging." IEEE International Conference on Computational Photography (ICCP) 2009.
418. Grossberg, M. D., and S. K. Nayar. "High Dynamic Range from Multiple Images: Which Exposures to Combine?" International Conference on Computer Vision, 2003.
419. Nayar, S. K., G. Krishnan, M. D. Grossberg, and R. Raskar. "Fast Separation of Direct and Global Components of a Scene using High Frequency Illumination." *Proceedings of SIGGRAPH, 2006.*
420. Wilson, T., R. Juskaitis, M. Neil, and M. Kozubek. "Confocal Microscopy by Aperture Correlation." *Optics Letters, Vol. 21, Issue 23, pp. 1879-1881 (1996).*

421. Corle, T. R., and G. S. Kino. *Confocal Scanning Optical Microscopy and Related Imaging Systems*. New York: Academic Press, 1996.
422. Fitch, J. Patrick. *Synthetic Aperture Radar*. New York: Springer-Verlag, 1988.
423. Ng, Ren, et al. "Light Field Photography with a Hand-held Plenoptic Camera." Stanford Tech Report CTSR 2005-02.
424. Ragan-Kelley, Jonathan, et al. "Decoupling Algorithms from Schedules for Easy Optimization of Image Processing Pipelines." *ACM Transactions on Graphics Vol. 31(4)* (2012).
425. Levoy, Marc. "Experimental Platforms for Computational Photography." *Computer Graphics and Applications Vol. 30* (2010).
426. Adams, Andrew, et al. "The Frankencamera: An Experimental Platform for Computational Photography." *Proceedings of SIGGRAPH*, 2010.
427. Salsman, Kenneth. "3D Vision for Computer Based Applications." Technical Report, Aptina, Inc., October 2010.
428. Cossairt, Oliver, and Shree Nayar. "Spectral Focal Sweep: Extended Depth of Field from Chromatic Aberrations. *IEEE International Conference on Computational Photography (ICCP)*, Mar, 2010. (see also US Patent EP2664153A1).
429. Fife, Keith, Abbas El Gamal, and H.-S. Philip Wong. "A 3D Multi-Aperture Image Sensor Architecture." *Proceedings of the IEEE Custom Integrated Circuits Conference*, pp. 281-284, September 2006.
430. Wang, Albert, Patrick Gill, and Alyosha Molnar. "Light Field Image Sensors Based on the Talbot Effect." *Applied Optics, Vol. 48, Issue 31*, pp. 5897-5905 (2009).
431. Shankar, Mohan, et al. "Thin Infrared Imaging Systems Through Multichannel Sampling." *Applied Optics, Vol. 47, Issue 10*, pp. B1-B10 (2008).
432. Barbara Zitová Jan Flusser, "Image registration methods: a survey", *Image and Vision Computing Volume 21, Issue 11, October 2003, Pages 977-1000*.
433. Hirschmüller, H. "Accurate and Efficient Stereo Processing by Semi-Global Matching and Mutual Information." Conference on Computer Vision and Pattern Recognition, 2005.
434. Tuytelaars, Tinne, and Luc Van Gool. "Wide Baseline Stereo Matching based on Local, Affinely Invariant Regions." British Machine Vision Conference, 2000.
435. Faugeras, Olivier. *Three Dimensional Computer Vision*. Cambridge, MA: MIT Press, 1993.
436. Stephen J. Maybank, Olivier D. Faugeras "A Theory of Self-calibration of a Moving Camera." *International Journal of Computer Vision Volume 8, Issue 2* (1992).
437. Richard Hartley and Andrew Zisserman. *Multiple View Geometry in Computer Vision*. Cambridge: Cambridge University Press, 2004.
438. Luong, Q.-T., and O. D. Faugeras. "The Fundamental Matrix: Theory, Algorithms, and Stability Analysis." *International Journal of Computer Vision Vol. 17* (1995).
439. Hartley, R. I. "Theory and Practice of Projective Rectification." *International Journal of Computer Vision Vol. 35* (1999).
440. Scharstein, Daniel, and Richard Szeliski. "A Taxonomy and Evaluation of Dense Two-Frame Stereo Correspondence Algorithms." *International Journal of Computer Vision Vol. 47* (2002).
441. Lazaros, Nalpantides, Georgios Christou Sirakoulis, and Antonios Gasteratos. Review of Stereo Vision Algorithms: From Software to Hardware." *IVO International Journal of Optomechatronics, Vol. 2, No. 4, 01.01.2008, pp. 435-462, 2008*.

442. Clark, Daniel E., and Spela Ivekovic. "The Cramer-Rao Lower Bound for 3-D State Estimation from Rectified Stereo Cameras." *IEEE Fusion* (2010).
443. Nayar, S. K., and M. Gupta. "Diffuse Structured Light." International Conference on Computational Photography, 2012.
444. Cattermole, F. *Principles of Pulse Code Modulation*. American Elsevier Pub. Co; 1st edition (1969).
445. Pagès, J., and J. Salvi. "Coded Light Projection Techniques for 3D Reconstruction." *J3eA, Journal sur l'enseignement des sciences et technologies de l'information et des systèmes, Volume 4, Hors-Série 3, 1* (2005).
446. Gu, J., et al. "Compressive Structured Light for Recovering Inhomogeneous Participating Media." European Conference on Computer Vision, 2008.
447. Nayar, Shree K. "Computational Cameras: Approaches, Benefits and Limits." Technical Report, Computer Science Department, Columbia University, 2011.
448. Lehmann, M., et al. "CCD/CMOS Lock-in Pixel for Range Imaging: Challenges, Limitations and State-of-the-art." *CSEM, Swiss Center for Electronics and Microtechnology*, 2004.
449. Andersen, J. F., J Busck, and H Heiselberg. "Submillimeter 3-D Laser Radar for Space Shuttle Tile Inspection." *Danisch Defense Research Establishment, Copenhagen, Denmark 2013*.
450. Grzegorzec, M., Theobalt, C., Koch, R., Kolb, A. (Eds.), *Time-of-Flight and Depth Imaging. Sensors, Algorithms, and Applications Lecture Notes in Computer Science*, Springer 2013.
451. Levoy, Marc, and Pat Hanrahan. "Light Field Rendering." *SIGGRAPH '96 Proceedings of the 23rd annual conference on Computer graphics and interactive techniques* (1996).
452. Curless, Brian, and Marc Levoy. "A Volumetric Method for Building Complex Models from Range Images." *SIGGRAPH '96 Proceedings of the 23rd annual conference on Computer graphics and interactive techniques* (1996).
453. Drebin, Robert A., Loren Carpenter, and Pat Hanrahan, "Volume Rendering." *SIGGRAPH* (1988).
454. Levoy, Marc. "Display of Surfaces from Volume Data." *CG&A* (1988).
455. Levoy, Marc. "Volume Rendering using the Fourier Projection Slice Theorum." Technical report CSL-TR-92-521, Stanford University, April 1992.
456. Klein, Georg, and David Murray. "Parallel Tracking and Mapping on a Camera Phone." *ISMAR '09 Proceedings of the 2009 8th IEEE International Symposium on Mixed and Augmented Reality* (2009).
457. Klein, Georg and David Murray. "Parallel Tracking and Mapping for Small AR Workspaces." *In Proc. International Symposium on Mixed and Augmented Reality (ISMAR'07, Nara)*.
458. Lucas, B. D., and T. Kanade. "An Image Registration Technique with an Application to Stereo Vision." *Proceedings of Image Understanding Workshop*, 1981.
459. Beauchemin, S., and J. D. Barron. "The Computation of Optical Flow." *ACM Computing Surveys* Volume 27 Issue 3, Sept. 1995 (1995).
460. Barron, J., D. Fleet, and S. Beauchemin. "Performance of Optical Flow Techniques." *International Journal of Computer Vision* February 1994, Volume 12, Issue 1, pp. 43-77.
461. Baker, Simon, et al. "A Database and Evaluation Methodology for Optical Flow." *International Journal of Computer Vision* Volume 92, Issue 1, pp. 1-31, (2009).

462. Quénot, G. M., J. Pakleza, and T. A. Kowalewski. "Particle Image Velocimetry with Optical Flow." In *Experiments in Fluids August 1998, Volume 25, Issue 3*, pp. 177-189.
463. Trulls, Eduard, Alberto Sanfeliu, and Francesc Moreno-Noguer, "Spatiotemporal Descriptor for Wide-Baseline Stereo Reconstruction of Non-Rigid and Ambiguous Scenes." European Conference on Computer Vision, 2012.
464. Steinman, Scott B., Barbara A. Steinman, and Ralph Philip Garzia. *Foundations of Binocular Vision: A Clinical Perspective*. New York: McGraw-Hill, 2000.
465. Roy, S., J. Meunier, and I. J. Cox. "Cylindrical Rectification to Minimize Epipolar Distortion." Conference on Computer Vision and Pattern Recognition, 1997.
466. Oram, Daniel. "Rectification for Any Epipolar Geometry." British Machine Vision Conference 2001, BMVC 2001.
467. Takita, Kenji, et al. "High-Accuracy Subpixel Image Registration Based on Phase-Only Correlation." Institute of Electronics, Information and Communication Engineers(IEICE), 2003.
468. Huhns, Tian. "Algorithms for Sub Pixel Registration." CGIP Computer Graphics and Image Processing, 1986.
469. Foroosh (Shekarforoush), Hassan, Josiane B. Zerubia, and Marc Berthod. "Extension of Phase Correlation to Subpixel Registration." IEEE Transactions on Image Processing 2002.
470. Zitnick, Lawrence, and Takeo Kanade. "A Cooperative Algorithm for Stereo Matching and Occlusion Detection." Carnegie Mellon University, Technical report CMU-RI-TR-99-35.
471. Jian Sun, Yin Li, Sing Bing Kang, and Heung-Yeung Shum. "Symmetric Stereo Matching for Occlusion Handling." *CVPR '05 Proceedings of the 2005 IEEE Computer Society Conference on Computer Vision and Pattern Recognition (CVPR'05) - Volume 2*.
472. Sing Bing Kang, Richard Szeliski, Jinxiang Chai "Handling Occlusions in Dense Multi-view Stereo." Conference on Computer Vision and Pattern Recognition, 2001.
473. Curless, Brian, and Marc Levoy. "A Volumetric Method for Building Complex Models from Range Images." *SIGGRAPH Proceedings* (1996).
474. Izadi, Shahram, et al. "KinectFusion: Real-time 3D Reconstruction and Interaction Using a Moving Depth Camera." UIST '11 Proceedings of the 24th annual ACM symposium on User interface software and technology 2011.
475. Newcombe, Richard A., et al. "KinectFusion: Real-Time Dense Surface Mapping and Tracking." ISMAR '11 Proceedings of the 2011 10th IEEE International Symposium on Mixed and Augmented Reality.
476. Durrant-Whyte, Hugh, and Tim Bailey. "Simultaneous Localisation and Mapping (SLAM): Part I The Essential Algorithms." IEEE ROBOTICS AND AUTOMATION MAGAZINE 2006.
477. Bailey, Tim, and Hugh Durrant-Whyte. "Simultaneous Localisation and Mapping (SLAM): Part II State of the Art." IEEE ROBOTICS AND AUTOMATION MAGAZINE 2006.
478. Seitz, Steven, et al. "A Comparison and Evaluation of Multi-View Stereo Reconstruction Algorithms.," CVPR 2006, vol. 1, pages 519-526.
479. Scharstein, D., and R. Szeliski. "A Taxonomy and Evaluation of Dense Two-Frame Stereo Correspondence Algorithms." *International Journal of Computer Vision Vol. 47* (2002).
480. Baker, Simon, and Ian Matthews. "Lucas-Kanade 20 Years On: A Unifying Framework." *International Journal of Computer Vision Vol. 56* (2004).

481. Gallup, D., M. Pollefeys, and J. M. Frahm. "3D Reconstruction Using an n-layer Heightmap." *Pattern Recognition Lecture Notes in Computer Science Volume 6376*, 2010.
482. Newcombe, Richard A., Steven J. Lovegrove, and Andrew J. Davison. "DTAM: Dense Tracking and Mapping in Real-Time." *International Conference On Computer Vision (ICCV)*, pages 2320–2327. IEEE, (2011).
483. Hwangbo, Myung, Jun-Sik Kim, and Takeo Kanade. "Inertial-aided KLT Feature Tracking for a Moving Camera." *Intelligent Robots and Systems (IROS) - IEEE 2009*.
484. Lovegrove, S. J., and A. J. Davison. "Real-time Spherical Mosaicing Using Whole Image Alignment." *European Conference on Computer Vision*, 2010.
485. Malis, E. "Improving Vision-based Control Using Efficient Second-order Minimization Techniques." *International Conference on Robotics and Automation, 2004*.
486. Kaiming He, J. Sun, and X. Tang. "Guided Image Filtering." *European Conference on Computer Vision*, 2010.
487. Rhemann, Christoph, et al. "Fast Cost-Volume Filtering for Visual Correspondence and Beyond." *CVPR, pages 3017–3024. IEEE, (2011)*.
488. Fattal, R. "Edge-Avoiding Wavelets and Their Applications." *SIGGRAPH (2009)*.
489. Gastal, E. S. L., and M. M. Oliveira. "Domain Transform for Edge-Aware Image and Video Processing." *ACM SIGGRAPH 2011 papers Article No. 69*.
490. Wolberg, George. *Digital Image Warping*. Hoboken, NJ: John Wiley, 1990.
491. Baxes, Gregory. *Digital Image Processing: Principles and Applications*. Hoboken, NJ: John Wiley, 1994.
492. Fergus, Rob, et al. "Removing Camera Shake from a Single Photograph." *ACM Transactions on Graphics (TOG) - Volume 25 Issue 3, July 2006*.
493. Rohr, K. *Landmark-Based Image Analysis using Geometric and Intensity Models*. Dordrecht: Kluwer Academic Publishers, 2001.
494. Corbet Jonathan, Alessandro Rubini, and Greg Kroah-Hartman. *Linux Device Drivers*, 3rd ed. O'Reilly Media; 3 edition (February 14, 2005).
495. Zinner, Christian, Wilfried Kubinger, and Richard Isaacs. "PfeLib—A Performance Primitives Library for Embedded Vision." *EURASIP*, 2007.
496. Houston, Mike. "OpenCL Overview." *SIGGRAPH OpenCL BOF (2011)*, also on KHRONOS website.
497. Zinner, C., and W. Kubinger. "ROS-DMA: A DMA Double Buffering Method for Embedded Image Processing with Resource Optimized Slicing." *IEEE RTAS 2006, Real-Time and Embedded Technology and Applications Symposium (2006)*.
498. Krehling, William C., et al. "Branch Elimination by Condition Merging." *Euro-Par 2003 Parallel Processing Lecture Notes in Computer Science Volume 2790, 2003*.
499. Ullman, Jeffrey D., and Alfred V. Aho. *Principles of Compiler Design* Addison-Wesley (August 1977).
500. Ragan-Kelley, Jonathan, et al. "Decoupling Algorithms from Schedules for Easy Optimization of Image Processing Pipelines." *ACM Transactions on Graphics (TOG) - SIGGRAPH Volume 31 Issue 4, July 2012*.
501. Alcantarilla, Pablo F., Adrien Bartoli, and Andrew J. Davison. "KAZE Features." *European Conference on Computer Vision*, 2012.
502. Schneider, C. A., Rasband, W. S., and Eliceiri, K. W. "NIH Image to ImageJ: 25 Years of Image Analysis." *Nature Methods* 9 (2012).

503. Muja, Marius. "Recognition Pipeline and Object Detection Scalability." Summer 2010 Internship Presentation, University of British Columbia.
504. Viola, Paul A., and Michael J. Jones. "Rapid Object Detection Using a Boosted Cascade of Simple Features." Conference on Computer Vision and Pattern Recognition, 2001.
505. Swain, Michael, and Dana H. Ballard. "Color Indexing." *International Journal of Computer Vision Volume 7* (1991).
506. Zhengyou Zhang. "A Flexible New Technique for Camera Calibration." *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 22(11): 1330–1334, 2000
507. Viola, Paul A., and Michael J. Jones. "Robust Real Time Object Detection." *International Journal of Computer Vision* (2001).
508. Murase, Hiroshi, and Shree K. Nayar. "Visual Learning and Recognition of 3-D Objects from Appearance." *International Journal of Computer Vision Volume 14* (1995).
509. Grosse, R., et al. "Ground-truth Dataset and Baseline Evaluations for Intrinsic Image Algorithms." International Conference on Computer Vision, 2009.
510. Haltakov, Vladimir, Christian Unger, and Slobodan Ilic. "Framework for Generation of Synthetic Ground Truth Data for Driver Assistance Applications." *Pattern Recognition Lecture Notes in Computer Science Volume 8142* (2013).
511. Buades, A., B. Coll, and J.-M. Morel. "A Non-local Algorithm for Image Denoising." *Computer Vision and Pattern Recognition Vol. 2* (2005).
512. Agaian, Sos S., Khaled Tourshan, and Joseph P. Noonan. "Parametric Slant-Hadamard Transforms." *Proceedings of SPIE*, 2003.
513. Sauvola, J., and M. Pietaksinen. "Adaptive Document Image Binarization." *Pattern Recognition Volume 33*, Issue 2, February 2000.
514. Yen, J. C., F. J. Chang, and S. Chang. "A New Criterion for Automatic Multilevel Thresholding." *Transactions on Image Processing Volume 4* Issue 3 (1995).
515. Sezgin, M., and B. Sankur. "Survey over Image Thresholding Techniques and Quantitative Performance Evaluation." *Journal of Electronic Imaging Volume 13*, Issue 1, January 2004.
516. Gaskill, Jack D. *Linear Systems, Fourier Transforms, and Optics*. Hoboken, NJ: John Wiley, 1978.
517. Shapiro, L. G., and G. C. Stockman. *Computer Vision*. Upper Saddle River, NJ: Prentice-Hall, 2001.
518. Flusser, Jan, Tomas Suk, and Barbara Zitova. *Moments and Moment Invariants in Pattern Recognition*. Hoboken, NJ: John Wiley, 2009.
519. Mikolajczyk, K., and C. Schmid. "An Affine Invariant Interest Point Detector." International Conference on Computer Vision, 2002.
520. Moravec, Hans P. "Obstacle Avoidance and Navigation in the Real World by a Seeing Robot Rover." *Tech. report CMU-RI-TR-80-03, Robotics Institute, Carnegie Mellon University & doctoral dissertation, Stanford University, September, 1980*.
521. Sivic, Josef. "Efficient Visual Search of Videos Cast as Text Retrieval." *PAMI Vol. 31* (2009).
522. X Tan and B. Triggs. "Enhanced Local Texture Feature Sets for Face Recognition Under Difficult Lighting Conditions." *AMFG'07 Proceedings of the 3rd international conference on Analysis and modeling of faces and gestures* (2010).
523. "Scale-space." *Encyclopedia of Computer Science and Engineering*, Hoboken, NJ: John Wiley, 2008.

524. Lindeberg, Tony. "Scale-space Theory: A Basic Tool for Analysing Structures at Different Scales." *Journal of Applied Statistics* Vol. 21(2), pp. 224–270, (1994).
525. Bengio, Yoshua. *Learning Deep Architectures for AI, Foundations and Trends in Machine Learning*. Now Publishers Inc USA (October 28, 2009).
526. Hinton, Geoffrey E., and Simon Osindero. "A Fast Learning Algorithm for Deep Belief Nets." *Neural Computation* July 2006, Vol. 18, No. 7, (2006).
527. Olson, Ed. "AprilTag: A Robust and Flexible Visual Fiducial System." International Conference on Robotics and Automation, 2011.
528. Farabet, Clement, et al. "Hardware Accelerated Convolutional Neural Networks for Synthetic Vision Systems." *ISCAS, pages 257–260. IEEE, (2010)*.
529. Tuytelaars, T., and L. Van Gool. "Matching Widely Separated Views Based on Affine Invariant Regions." *International Journal on Computer Vision* Volume 59 (2004).
530. Fischler, M. A., and R. A. Elschlager. "The Representation and Matching of Pictorial Structures." *IEE Transactions on Computers* (1973).
531. Felzenszwalb, Pedro F, Ross B. Girshick, David McAllester, and Deva Ramanan. "Object Detection with Discriminatively Trained Part-Based Models." *PAMI* (vol. 32 no. 9) (2010).
532. Yi Yang, Deva Ramanan. "Articulated Pose Estimation with Flexible Mixtures-of-parts." Conference on Computer Vision and Pattern Recognition, 2011.
533. Amit, Y., and A. Trounev. "POP: Patchwork of Parts Models for Object Recognition." *International Journal of Computer Vision* Volume 75 (2007).
534. Lazebnik, S., C. Schmid, and J. Ponce. "Beyond Bags of Features: Spatial Pyramid Matching for Recognizing Natural Scene Categories." Conference on Computer Vision and Pattern Recognition, 2006.
535. Grauman, K., and T. Darrell, "The Pyramid Match Kernel: Discriminative Classification with Sets of Image Features." International Conference on Computer Vision, 2005.
536. Michal Aharon, Michael Elad, Alfred Bruckstein "KSVD: An Algorithm for Designing Overcomplete Dictionaries for Sparse Representation." *IEEE Transaction on Signal Processing Vol. 64* (2006).
537. Fei-Fei, L., R. Fergus, and A. Torralba. "Recognizing and Learning Object Categories." Conference on Computer Vision and Pattern Recognition, 2007.
538. Johnson, Andrew. *Spin-Images: A Representation for 3-D Surface Matching* Ph.D. dissertation, technical report CMU-RI-TR-97-47, Robotics Institute, Carnegie Mellon University, 1997.
539. Zoltan-Csaba Marton, Dejan Pangercic, Nico Blodow, Michael Beetz "Combined 2D-3D Categorization and Classification for Multimodal Perception Systems." *International Journal of Robotics Research archive Volume 30 Issue 11, September 2011*.
540. Kass, Michael, Andrew Witkin, and Demetri Terzopoulos. "Snakes: Active Contour Models." *International Journal on Computer Vision* (1988).
541. Tombari, F, S. Salti, and L. Di Stefano. "A Combined Texture-Shape Descriptor for Enhanced 3D Feature Matching." International Conference on Image Processing, 2011.
542. Mikolajczyk, K., and C. Schmid. "Indexing Based on Scale Invariant Interest Points." International Conference on Computer Vision, 2001.
543. Ragan-Kelley, Jonathan, et al. "Halide: A Language and Compiler for Optimizing Parallelism, Locality, and Recomputation in Image Processing Pipelines." *PLDI '13 Proceedings of the 34th ACM SIGPLAN conference on Programming language design and implementation 2013*.

544. Kindratenko, Volodymyr V., et al. "GPU Clusters for High- Performance Computing." In Proc. *Workshop on Parallel Programming on Accelerator Clusters - PPAC'09*, 2009.
545. Munshi, Aaftab, et al. *OpenCL Programming Guide. Addison-Wesley Professional; 1 edition (July 23, 2011)*.
546. Prince, Simon. *Computer Vision: Models, Learning, and Inference*. Cambridge: Cambridge University Press, 2012.
547. Lindeberg, Tony. *Scale Space Theory in Computer Vision* Springer, 2010.
548. Pele, Ofir. *Distance Functions: Theory, Algorithms and Applications*. Ph.D. Thesis, Hebrew University, 2011.
549. Robert E. Schapire, Yoram Singer, *Improved Boosting Algorithms Using Confidence-rated Predictions*, Machine Learning 1999.
550. Bache, K. & Lichman, M. UCI Machine Learning Repository [<http://archive.ics.uci.edu/ml>]. Irvine, CA: University of California, School of Information and Computer Science, 2013.
551. Zach, Christopher. "Fast and High Quality Fusion of Depth Maps." 3DPVT Joint 3DIM/3DPVT Conference 3D Imaging, Modeling, Processing, Visualization, Transmission 2008.