

# Bibliography

- [Adelson and Weiss, 1995] E.H. Adelson and Y. Weiss. Perceptually organized em: A framework for motion segmentation that combines information about form and motion. Technical report, MIT Media Lab Vision and Modelling TR, 1995.
- [Adelson and Weiss, 1996] E.H. Adelson and Y. Weiss. A unified mixture framework for motion segmentation: Incorporating spatial coherence and estimating the number of models. In *IEEE Conference on Computer Vision and Pattern Recognition*, pages 321–326. IEEE Press, 1996.
- [Belhumeur and Mumford, 1992] P.N. Belhumeur and D. Mumford. A bayesian treatment of the stereo correspondence problem using half-occluded regions. In *IEEE Conference on Computer Vision and Pattern Recognition*, pages 506–512. IEEE Press, 1992.
- [Binford *et al.*, 1989] T.O. Binford, T.S. Levitt, and W.B. Mann. Bayesian inference in model-based machine vision. 3, 1989.
- [Black and Jepson, 1998] M.J. Black and A.D. Jepson. A probabilistic framework for matching temporal trajectories: CONDENSATION-based recognition of gestures and expressions. In *European Conference on Computer Vision [1998]*, pages 909–924.
- [Blackman and Popoli, 1999] S. Blackman and R. Popoli. *Design and Analysis of Modern Tracking Systems*. Artech House, 1999.
- [Blake and Isard, 1996] A. Blake and M. Isard. The condensation algorithm - conditional density propagation and applications to visual tracking. In M.C. Mozer, M.I. Jordan, and T. Petsche, editors, *Advances in neural information processing systems 9*, 1996.
- [Blake and Isard, 1998] A. Blake and M. Isard. Condensation - conditional density propagation for visual tracking. *Int. J. Computer Vision*, 29(1):5–28, 1998.
- [Burl *et al.*, 1995] M.C. Burl, T.K. Leung, and P. Perona. Face localisation via shape statistics. In *Int. Workshop on Automatic Face and Gesture Recognition*, 1995.
- [Buxton and Gong, 1995] H. Buxton and S.G. Gong. Visual surveillance in a dynamic and uncertain world. *Artificial Intelligence*, 78(1-2):431–459, October 1995.
- [Carlin and Louis, 1996] B.P. Carlin and T.A. Louis. *Bayes and empirical Bayes methods for data analysis*. Chapman and Hall, 1996.
- [Cutler and Davis, 2000] Ross Cutler and Larry S. Davis. Robust real-time periodic motion detection, analysis and applications. *IEEE T. Pattern Analysis and Machine Intelligence*, 22:781–796, 2000.

- [CVP, 1999] *IEEE Conference on Computer Vision and Pattern Recognition*. IEEE Press, 1999.
- [CVP, 2000] *IEEE Conference on Computer Vision and Pattern Recognition*. IEEE Press, 2000.
- [Dellaert *et al.*, 1999] F. Dellaert, W. Burgard, D. Fox, and S. Thrun. Using the condensation algorithm for robust, vision-based mobile robot localization. In *IEEE Conference on Computer Vision and Pattern Recognition* [1999], pages II:588–594.
- [Dellaert *et al.*, 2000] F. Dellaert, S.M. Seitz, C.E. Thorpe, and S. Thrun. Structure from motion without correspondence. In *IEEE Conference on Computer Vision and Pattern Recognition* [2000], pages II:557–564.
- [Deutscher *et al.*, 2000] Jonathan Deutscher, Andrew Blake, and Ian Reid. Articulated body motion capture by annealed particle filtering. In *IEEE Conf. on Computer Vision and Pattern Recognition*, pages II:126–133, 2000.
- [Doucet *et al.*, 2001] A. Doucet, N. De Freitas, and N. Gordon. *Sequential Monte Carlo Methods in Practice*. Springer-Verlag, 2001.
- [ECC, 1996] *European Conference on Computer Vision*, 1996.
- [ECC, 1998] *European Conference on Computer Vision*, 1998.
- [ECC, 2000] *European Conference on Computer Vision*, 2000.
- [Evans and Swartz, 2000] M. Evans and T. Swartz. *Approximating Integrals via Monte Carlo and Deterministic Methods*. Oxford University Press, 2000.
- [Evans *et al.*, 2000] M. Evans, N. Hastings, and J.B. Peacock. *Statistical Distributions, 3 ed.* John Wiley and Sons, 2000.
- [Farid and Adelson, 1999] H. Farid and E.H. Adelson. Separating reflections and lighting using independent components analysis. In *IEEE Conference on Computer Vision and Pattern Recognition* [1999], pages I:262–267.
- [Faugeras and Hebert, 1986] O.D. Faugeras and M. Hebert. The representation, recognition, and locating of 3-D objects. *International Journal of Robotics Research*, 5(3):27–52, Fall 1986.
- [Felzenszwalb and Huttenlocher, 2000] P.F. Felzenszwalb and D.P. Huttenlocher. Efficient matching of pictorial structures. In *IEEE Conference on Computer Vision and Pattern Recognition* [2000], pages II:66–73.
- [Fleck *et al.*, 1996] M.M. Fleck, D.A. Forsyth, and C. Bregler. Finding naked people. In *European Conference on Computer Vision* [1996], pages II:593–602.
- [Forsyth and Fleck, 1999] D.A. Forsyth and M.M. Fleck. Automatic detection of human nudes. *International Journal of Computer Vision*, 32(1):63–77, August 1999.

- [Forsyth *et al.*, 1999] D.A. Forsyth, S. Ioffe, and J. Haddon. Bayesian structure from motion. In *Proceedings, Seventh International Conference on Computer Vision* [1999], pages 660–665.
- [Forsyth, 1999] D.A. Forsyth. Sampling, resampling and colour constancy. In *IEEE Conference on Computer Vision and Pattern Recognition* [1999], pages I:300–305.
- [Gamerman, 1997] D. Gamerman. *Markov chain Monte Carlo*. Chapman-Hall, 1997.
- [Gelman *et al.*, 1995] A. Gelman, J.B. Carlin, H.S. Stern, and D.B. Rubin. *Bayesian Data Analysis*. Chapman and Hall, 1995.
- [Geman and Geman, 1984] S. Geman and D. Geman. Stochastic relaxation, Gibbs distributions, and the bayesian restoration of images. *IEEE Trans. Pattern Analysis and Machine Intelligence*, 6(6):721–741, November 1984.
- [Grimson and Lozano-Pérez, 1987] W.E.L. Grimson and T. Lozano-Pérez. Localizing overlapping parts by searching the interpretation tree. *IEEE Trans. Patt. Anal. Mach. Intell.*, 9(4):469–482, 1987.
- [Haritaoglu *et al.*, 2000] Ismail Haritaoglu, David Harwood, and Larry S. Davis. W4: Real-time surveillance of people and their activities. *IEEE T. Pattern Analysis and Machine Intelligence*, 22:809–830, 2000.
- [Huang *et al.*, 1997] C-Y. Huang, O.T. Camps, and T. Kanungo. Object recognition using appearance-based parts and relations. In *IEEE Conf. on Computer Vision and Pattern Recognition*, pages 877–83, 1997.
- [Huttenlocher and Ullman, 1987] D.P. Huttenlocher and S. Ullman. Object recognition using alignment. In *Proc. Int. Conf. Comp. Vision*, pages 102–111, June 1987.
- [ICC, 1999] *International Conference on Computer Vision*, 1999.
- [Ioffe and Forsyth, 1998] S. Ioffe and D.A. Forsyth. Learning to find pictures of people. In *NIPS*, 1998.
- [Ioffe and Forsyth, 1999] S. Ioffe and D.A. Forsyth. Finding people by sampling. In *Proceedings, Seventh International Conference on Computer Vision* [1999], pages 1092–1097.
- [Isard and Blake, 1996] M. Isard and A. Blake. Contour tracking by stochastic propagation of conditional density. In *European Conference on Computer Vision* [1996], pages I:343–356.
- [Isard and Blake, 1998a] M. Isard and A. Blake. ICONDENSATION: Unifying low-level and high-level tracking in a stochastic framework. In *European Conference on Computer Vision* [1998], pages 893–908.
- [Isard and Blake, 1998b] M. Isard and A. Blake. A mixed-state condensation tracker with automatic model-switching. In *Proceedings, Sixth International Conference on Computer Vision*, pages 107–112, 1998.

- [Kanazawa *et al.*, 1995] K. Kanazawa, D. Koller, and S. Russell. Stochastic simulation algorithms for dynamic probabilistic networks. In *Proceedings of the Eleventh Conference on Uncertainty in Artificial Intelligence*. Morgan Kaufmann, Montreal, Canada, 1995.
- [Kitagawa, 1987] G. Kitagawa. Non-gaussian state space modelling of non-stationary time series with discussion. *J. Am. Stat. Assoc.*, 82:1032–1063, 1987.
- [Krebs *et al.*, 1998] B. Krebs, M. Burkhardt, and B. Korn. Handling uncertainty in 3-D object recognition using Bayesian networks. In *European Conference on Computer Vision* [1998], pages 782–95.
- [Kumar and Desai, 1996] V.P. Kumar and U.B. Desai. Image interpretation using bayesian networks. *IEEE Trans. Pattern Analysis and Machine Intelligence*, 18(1):74–77, January 1996.
- [Leung *et al.*, 1995] T.K. Leung, M.C. Burl, and P. Perona. Finding faces in cluttered scenes using random labelled graph matching. In *Int. Conf. on Computer Vision*, 1995.
- [Liu and Picard, 1996] F. Liu and R.W. Picard. Detecting and segmenting periodic motion. Media lab vision and modelling tr-400, MIT, 1996.
- [Mann and Binford, 1992] W.B. Mann and T.O. Binford. An example of 3-D interpretation of images using bayesian networks. In *Image Understanding Workshop*, pages 793–801, 1992.
- [Newman and Barkema, 1998] M.E.J. Newman and G.T. Barkema. *Monte Carlo Methods in Statistical Physics*. Oxford University Press, 1998.
- [Niyogi and Adelson, 1995] S.A. Niyogi and E.H. Adelson. Analyzing and recognizing walking figures in xyt. Media lab vision and modelling tr-223, MIT, 1995.
- [Oren *et al.*, 1997] M. Oren, C. Papageorgiou, P. Sinha, and E. Osuna. Pedestrian detection using wavelet templates. In *IEEE Conf. on Computer Vision and Pattern Recognition*, pages 193–9, 1997.
- [Papademetris and Belhumeur, 1996] X. Papademetris and P.N. Belhumeur. Estimation of motion boundary location and optical flow using dynamic programming. In *Proceedings, International Conference on Image Processing*, pages 509–12, 1996.
- [Patel *et al.*, 1976] J.K. Patel, C.H. Kapadia, and D.B. Owen. *Handbook of statistical distributions*. M. Dekker, 1976.
- [Poggio and Sung, 1995] T. Poggio and Kah-Kay Sung. Finding human faces with a gaussian mixture distribution-based face model. In *Asian Conf. on Computer Vision*, pages 435–440, 1995.
- [Rittscher and Blake, 1999] J. Rittscher and A. Blake. Classification of human body motion. In *Proceedings, Seventh International Conference on Computer Vision* [1999], pages 634–639.

- [Rowley *et al.*, 1996a] H.A. Rowley, S. Baluja, and T. Kanade. Human face detection in visual scenes. In D.S. Touretzky, M.C. Mozer, and M.E. Hasselmo, editors, *Advances in Neural Information Processing 8*, pages 875–881, 1996.
- [Rowley *et al.*, 1996b] H.A. Rowley, S. Baluja, and T. Kanade. Neural network-based face detection. In *IEEE Conf. on Computer Vision and Pattern Recognition*, pages 203–8, 1996.
- [Rowley *et al.*, 1998a] H.A. Rowley, S. Baluja, and T. Kanade. Neural network-based face detection. *IEEE T. Pattern Analysis and Machine Intelligence*, 20(1):23–38, 1998.
- [Rowley *et al.*, 1998b] H.A. Rowley, S. Baluja, and T. Kanade. Rotation invariant neural network-based face detection. In *IEEE Conf. on Computer Vision and Pattern Recognition*, pages 38–44, 1998.
- [Sidenbladh *et al.*, 2000a] H. Sidenbladh, M.J. Black, and D.J. Fleet. Stochastic tracking of 3d human figures using 2d image motion. In *European Conference on Computer Vision [2000]*, pages xx–yy.
- [Sidenbladh *et al.*, 2000b] Hedvig Sidenbladh, Michael J. Black, and David J. Fleet. Stochastic tracking of 3d human figures using 2d image motion. In *European Conference on Computer Vision*, 2000.
- [Song *et al.*, 1999] Y. Song, L. Goncalves, E. di Bernardo, and P. Perona. Monocular perception of biological motion: Detection and labeling. In *Proceedings, Seventh International Conference on Computer Vision [1999]*, pages 805–813.
- [Song *et al.*, 2000] Y. Song, L. Goncalves, and P. Perona. Monocular perception of biological motion: Clutter and partial occlusion. In *European Conference on Computer Vision [2000]*, pages 719–733.
- [Sullivan *et al.*, 1999] J. Sullivan, A. Blake, M. Isard, and J. MacCormick. Object localization by bayesian correlation. In *Int. Conf. on Computer Vision*, pages 1068–1075, 1999.
- [Sung and Poggio, 1998] K-K. Sung and T. Poggio. Example-based learning for view-based human face detection. *IEEE T. Pattern Analysis and Machine Intelligence*, 20:39–51, 1998.
- [Thompson and Mundy, 1987] D.W. Thompson and J.L. Mundy. Three-dimensional model matching from an unconstrained viewpoint. In *IEEE Int. Conf. on Robotics and Automation*, pages 208–220, April 1987.
- [Ullman, 1996] S. Ullman. *High-Level Vision: Object Recognition and Visual Cognition*. MIT Press, 1996.
- [Wang and Adelson, 1993] J.Y.A. Wang and E.H. Adelson. Representing moving images with layers. Technical report, MIT Media Lab Vision and Modelling TR, 1993.

- [Wang and Adelson, 1994] J.Y.A. Wang and E.H. Adelson. Representing moving images with layers. *IEEE Trans. Image Processing*, 3(5):625–638, September 1994.
- [Wren *et al.*, 1995] C. Wren, A. Azabajejani, T. Darrell, and A. Pentland. Pfunder: real-time tracking of the human body. Mit media lab perceptual computing section tr 353, MIT, 1995.
- [Yacoob and Davis, 2000] Yaser Yacoob and Larry S. Davis. Learned models for estimation of rigid and articulated human motion from stationary or moving camera. *Int. J. Computer Vision*, 36:5–30, 2000.
- [Zhu *et al.*, 1998] S.C. Zhu, Y. Wu, and D. Mumford. Filters, random-fields and maximum-entropy (frame): Towards a unified theory for texture modeling. *International Journal of Computer Vision*, 27(2):107–126, March 1998.
- [Zhu *et al.*, 2000] S.C. Zhu, R. Zhang, and Z. Tu. Integrating bottom-up/top-down for object recognition by data driven markov chain monte carlo. In *IEEE Conference on Computer Vision and Pattern Recognition* [2000], pages I:738–745.