

Publications - D. Suter

(compiled July 10, 2013)

Book or Part of Book

- [1] T. Tangkuampien and D. Suter. KSM based machine learning for markerless motion capture. In L. Wang, L. Cheng, and G. Zhao, editors, *Machine Learning for Human Motion Analysis: Theory and Practice*, chapter 5, pages 74–106. Medical Information Science Reference - IGI Global, 2010.
- [2] D. Suter and H. Wang. Robust fitting using mean shift: applications in computer vision. In M. Hubert, G. Pison, A. Struyf, and S. Van Aelst, editors, *Theory and Applications of Recent Robust Methods*, Statistics for Industry and Technology, pages 307–318. Birkhauser, Basel, 2004.
- [3] A. Bab-Hadiashar and D. Suter, editors. *Data Segmentation and Model Selection for Computer Vision*. Springer-Verlag, 2000.
- [4] A. Bab-Hadiashar and D. Suter. Range and motion segmentation. In A. Bab-Hadiashar and D. Suter, editors, *Data Segmentation and Model Selection for Computer Vision*, chapter 5, pages 119–142. Springer-Verlag, 2000.
- [5] D. Suter. Visual reconstruction and data fusion. In O. M. Omidvar, editor, *Progress in Neural Networks*, volume 4: Machine Vision, chapter 2, pages 29–76. Ablex, Greenwich, Connecticut, 1997.
- [6] D. Suter. Inverse problems in machine vision. In W. L. Hogarth and B. J. Noye, editors, *Computational Techniques and Applications*, pages 509–516. Hemisphere, New York, 1990.

Journal

- [1] Q.-H. Tran, T.-J. Chin, W. Chojnacki, and D. Suter. Sampling minimal subsets with large spans for robust parameter estimation. *International Journal on Computer Vision*, Accepted July 10 2013.
- [2] Thuraippah Sathyan, Tat-Jun Chin, Sanjeev Arulampalam, and David Suter. A multiple hypothesis tracker for multitarget tracking with multiple simultaneous measurements. *IEEE Journal of Selected Topics in Signal Processing*, 7(3):448–460, June 2013.
- [3] Jin Yu, Anders Eriksson, Tat-Jun Chin, and D. Suter. An adversarial optimization approach to efficient outlier removal. *Journal of Mathematical Imaging and Vision*, (accepted 25/1/2013).
- [4] Hoi Sim Wong, Tat-Jun Chin, Jin Yu, and David Suter. Mode seeking over permutations for rapid geometric model fitting. *Pattern Recognition*, 46(1):257–271, 2013. <http://www.sciencedirect.com/science/article/pii/S0031320312003160>.
- [5] Reza Hoseinnezhad, Ba-Ngu Vo, Ba-Tuong Vo, and David Suter. Visual tracking of numerous targets via multi-Bernoulli filtering of image data. *Pattern Recognition*, 45(10):3625–3635, 2012. <http://www.sciencedirect.com/science/article/pii/S0031320312001616>.
- [6] Hanzi Wang, Tat-Jun Chin, and David Suter. Simultaneously fitting and segmenting multiple-Structure data with outliers. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 34(6):1177–1192, June 2012. <http://doi.ieeecomputersociety.org/10.1109/TPAMI.2011.216>.
- [7] Tat-Jun. Chin, Jin Yu, and David Suter. Accelerated hypothesis generation for multi-structure data via preference analysis. *IEEE Trans. Pattern Analysis and Machine Intelligence*, 34(4):625–638, April 2012. <http://doi.ieeecomputersociety.org/10.1109/TPAMI.2011.169>.
- [8] Ba-Ngu Vo, Ba-Tuong Vo, Nam-Trung Pham, and David Suter. Reply to: Comments on joint detection and estimation of multiple objects from image observations. *Signal Processing, IEEE Transactions on*, 60(3):1540–1541, March 2012. <http://doi.ieeecomputersociety.org/10.1109/TSP.2011.2173686>.
- [9] Weiming Hu, Haiqiang Zuo, Ou Wu, Yunfei Chen, Zhongfei Zhang, and David Suter. Recognition of adult images, videos, and web page bags. *ACM Trans. Multimedia Comput. Commun. Appl.*, 7S:28:1–28:24, October 2011. <http://doi.acm.org/10.1145/2037676.2037685>.

- [10] Tat-Jun Chin, Hanzi Wang, and David Suter. Boosting histograms of descriptor distances for scalable multiclass specific scene recognition. *Image and Vision Computing*, 29(4):241–250, March 2011. <http://www.sciencedirect.com/science/article/pii/S0262885610001538>.
- [11] Ba-Ngu Vo, Ba-Tuong Vo, Nam-Trung Pham, and D. Suter. Joint detection and estimation of multiple objects from image observations. *IEEE Trans. Signal Processing*, 58(10):5129–5141, 2010. <http://doi.ieeecomputersociety.org/10.1109/TSP.2010.2050482>.
- [12] R. Hoseinnezhad, A. Bab-Hadiashar, and D. Suter. Finite sample bias of robust estimators in segmentation of closely spaced structures: A comparative study. *Journal of Mathematical Imaging and Vision*, 37(1):66–84, 2010. <http://dx.doi.org/10.1007/s10851-010-0193-7>.
- [13] Hang Zhou, Liang Wang, and D. Suter. Human action recognition by feature-reduced Gaussian Process Classification. *Pattern Recognition Letters*, 30(12):1059–1066, September 2009. <http://www.sciencedirect.com/science/article/pii/S0167865509000592>.
- [14] P. Chen and D. Suter. Simultaneously estimating the fundamental matrix and homographies. *IEEE Trans. on Robotics*, 25(6):1425–1431, December 2009. <http://doi.ieeecomputersociety.org/10.1109/TRO.2009.2030224>.
- [15] EeHui Lim and D. Suter. 3D terrestrial LIDAR classifications with super-voxels and multi-scale conditional random field. *CAD*, 41(10):701–710, 2009. <http://www.sciencedirect.com/science/article/pii/S0010448509000475>.
- [16] P. Chen and D. Suter. Error analysis in homography estimation by first order approximation tools: A general technique. *Journal of Mathematical Imaging and Vision*, 33(3):281–295, March 2009. <http://dx.doi.org/10.1007/s10851-008-0113-2>.
- [17] P. Chen and D. Suter. Rank constraints for homographies over two views: Revisiting the rank four constraint. *International Journal of Computer Vision*, 81(2):205–225, February 2009. <http://dx.doi.org/10.1007/s11263-008-0167-z>.
- [18] K. Schindler and D. Suter. Object detection by global contour shape. *Pattern Recognition*, 41(12):3736–3748, 2008. <http://www.sciencedirect.com/science/article/pii/S0031320308002070>.
- [19] K. Schindler, D. Suter, and H. Wang. A model-selection framework for multibody structure-and-motion of image sequences. *Int. Journal of Computer Vision*, 79(2):159–177, August 2008. <http://dx.doi.org/10.1007/s11263-007-0111-7>.
- [20] Tat Jun Chin and David Suter. Out-of-sample extrapolation of learned manifolds. *IEEE Trans. Pattern Analysis and Machine Intelligence*, 30(9):1547–1556, September 2008. <http://doi.ieeecomputersociety.org/10.1109/TPAMI.2007.70813>.

- [21] L. Wang and D. Suter. Visual learning and recognition of sequential data manifolds with applications to human movement analysis. *Computer Vision and Image Understanding*, 110(2):153–172, May 2008. <http://www.sciencedirect.com/science/article/pii/S1077314207000872>.
- [22] Tat-Jun Chin and David Suter. Incremental kernel principal component analysis. *IEEE Trans. Image Processing*, 16(6):1662–1674, June 2007. <http://doi.ieeecomputersociety.org/10.1109/TIP.2007.896668>.
- [23] H. Wang, D. Suter, K. Schindler, and C. Shen. Adaptive object tracking based on an effective appearance filter. *IEEE Trans. Pattern Analysis and Machine Intelligence*, 29(9):1661–1667, September 2007. <http://doi.ieeecomputersociety.org/10.1109/TPAMI.2007.1112>.
- [24] L. Wang and D. Suter. Learning and matching of dynamic shape manifolds for human action recognition. *IEEE Trans. Image Processing*, 16(6):1646–1661, June 2007. <http://doi.ieeecomputersociety.org/10.1109/TIP.2007.896661>.
- [25] P. Chen and D. Suter. A bilinear approach to the parameter estimation of a general heteroscedastic linear system, with application to conic fitting. *Journal of Mathematical Imaging and Vision*, 28(3):191–208, July 2007. <http://dx.doi.org/10.1007/s10851-007-0003-z>.
- [26] K. Yamamoto, T. Yendo, T. Fujii, M. Tanimoto, and D. Suter. Colour correction for multiple-camera system by using correspondences. *The Journal of The Institute of Image Information and Television Engineering*, 61(2):213–222, 2007.
- [27] H. Wang and D. Suter. A consensus based method for tracking: Modelling background scenario and foreground appearance. *Pattern Recognition*, 40(3):1091–1105, 2007. <http://www.sciencedirect.com/science/article/pii/S0031320306002317>.
- [28] N. Gheissari, A. Bab-Hadiashar, and D. Suter. Parametric model-based motion segmentation using surface selection criterion. *Computer Vision and Image Understanding*, 102(2):214–226, 2006. <http://www.sciencedirect.com/science/article/pii/S1077314206000099>.
- [29] K. Schindler and D. Suter. Two-view multibody structure-and-motion with outliers through model selection. *IEEE Trans. Pattern Analysis and Machine Intelligence*, 28(6):983–995, 2006. <http://doi.ieeecomputersociety.org/10.1109/TPAMI.2006.130>.
- [30] P. Chen and D. Suter. An analysis of linear subspace approaches for computer vision and pattern recognition. *International Journal of Computer Vision*, 68(1):83–106, 2006. <http://dx.doi.org/10.1007/s11263-006-6659-9>.

- [31] P. Chen and D. Suter. Subspace-based face recognition: Outlier detection and a new distance criterion. *Int. Journal Pattern Recognition and Artificial Intelligence*, 19(4):479–493, 2005. <http://dx.doi.org/10.1142/S0218001405004174>.
- [32] P. Tissainayagam and D. Suter. Object tracking in image sequences using point features. *Pattern Recognition*, 38(1):105–113, 2005. <http://www.sciencedirect.com/science/article/pii/S0031320304002407>.
- [33] H. Wang and D. Suter. Robust Adaptive-Scale Parametric Model Estimation for Computer Vision. *IEEE Trans. Pattern Analysis and Machine Intelligence*, 26(11):1459–1479, November 2004. <http://doi.ieeecomputersociety.org/10.1109/TPAMI.2004.109>.
- [34] P. Chen and D. Suter. Recovering the missing components in a large noisy low-rank matrix: Application to SFM. *IEEE Trans. Pattern Analysis and Machine Intelligence*, 26(8):1051–1063, August 2004. <http://doi.ieeecomputersociety.org/10.1109/TPAMI.2004.52>.
- [35] H. Wang and D. Suter. MDPE: A very robust estimator for model fitting and range image segmentation. *Int. J. of Computer Vision*, 59(2):139–166, September 2004. <http://dx.doi.org/10.1023/B:VISI.0000022287.61260.b0>.
- [36] P. Tissainayagam and D. Suter. Assessing the performance of corner detectors for point feature tracking applications. *Image and Vision Computing*, 22(8):663–679, August 2004. <http://www.sciencedirect.com/science/article/pii/S026288560400040X>.
- [37] H. Wang and D. Suter. Using symmetry in robust model fitting. *Pattern Recognition Letters*, 24(16):2953–2966, 2003. <http://www.sciencedirect.com/science/article/pii/S0167865503001569>.
- [38] P. Tissainayagam and D. Suter. Contour tracking with automatic motion model switching. *Pattern Recognition*, 36(10):2411–2427, October 2003. <http://www.sciencedirect.com/science/article/pii/S0031320303000888>.
- [39] P. Tissainayagam and D. Suter. Performance measures for assessing contour trackers. *International Journal of Image and Graphics*, 2:343–359, April 2002. <http://dx.doi.org/10.1142/S0219467802000627>.
- [40] P. Tissainayagam and D. Suter. Visual tracking with automatic motion model switching. *Pattern Recognition*, 34:641–660, 2001. <http://www.sciencedirect.com/science/article/pii/S0031320300000194>.
- [41] P. Tissainayagam and D. Suter. Performance prediction analysis of linear point feature trackers based on different motion models. *Computer Vision and Image Understanding*, 84(1):104–125, October 2001. <http://www.sciencedirect.com/science/article/pii/S1077314201909397>.

- [42] D. Suter and F. Chen. Left ventricular motion reconstruction based on elastic vector splines. *IEEE Trans. Medical Imaging*, pages 295–305, 2000. <http://doi.ieeecomputersociety.org/10.1109/42.848181>.
- [43] F. Chen and D. Suter. Div-curl vector quasi-interpolation on a finite domain. *Mathematical and Computer Modelling*, 30(2):179–204, 1999. <http://www.sciencedirect.com/science/article/pii/S0895717799001247>.
- [44] A. Bab-Hadiashar and D. Suter. Robust segmentation of visual data using ranked unbiased scale estimate. *ROBOTICA, International Journal of Information, Education and Research in Robotics and Artificial Intelligence*, 17:649–660, 1999. <http://dx.doi.org/10.1017/S0263574799001812>.
- [45] A. Bab-Hadiashar and D. Suter. Robust optic flow computation. *International Journal of Computer Vision*, 29(1):59–77, August 1998. <http://dx.doi.org/10.1023/A:1008090730467>.
- [46] F. Chen and D. Suter. Fast evaluation of vector splines in three dimensions. *Journal of Computing*, 61(3):189–213, 1998. <http://dx.doi.org/10.1007/BF02684350>.
- [47] F. Chen and D. Suter. Using a fast multipole method to accelerate the evaluation of splines. *IEEE Computational Science and Engineering*, 5(3):24–31, July-September 1998. <http://doi.ieeecomputersociety.org/10.1109/99.714590>.
- [48] D. Suter. Fast evaluation of splines using Poisson formula. *International Journal of Scientific Computing and Modeling*, 1(1):70–87, 1994.
- [49] D. Suter. Mixed-finite element based motion estimation. *Innovation and Technology in Biology and Medicine*, 15(3):292–307, 1994.
- [50] D. Suter. Mixed finite element based neural networks in visual reconstruction. *Int. Journal. of Pattern Recognition and Artificial Intelligence*, 6(1):113–129, April 1992. <http://dx.doi.org/10.1142/S0218001492000060>.
- [51] D. Suter. Constraint networks in vision. *IEEE Transactions on Computers*, 40(12):1359–1367, December 1991. <http://doi.ieeecomputersociety.org/10.1109/12.106221>.
- [52] X. Deng, T. Dillon, K. Lew, J. Rankin, E. Smith, and D. Suter. Optimal topologies of transputers for different classes of problems. *Comp. Syst. Sci. and Eng.*, 5(1):36–41, 1990.

Theses

- [1] D. Suter. *Co-operative Algorithms for Machine Vision: Models, problem Formulation, and Neural Network Implementations*. PhD thesis, Dept. of Comp. Sci. and Comp. Eng., La Trobe University, Bundoora 3083, Aust., August 1990.

Conference Proceedings

- [1] Thuraippah Sathyan, Tat-Jun Chin, David Suter, and Mark Hedley. Improved wireless tracking using radio frequency and video sensors. In *Fusion2013, Instabul*, (accepted 14/5/2013).
- [2] Julio Hernandez Zaragoza, Tat-Jun Chin, Michael S. Brown, and David Suter. As-projective-as-possible image stitching with moving DLT. In *CVPR2013*, (accepted) Feb 25 2013.
- [3] Guosheng Lin, Chunhua Shen, David Suter, and Anton van den Hengel. Fast training of effective multi-class boosting using coordinate descent optimization. In *ACCV2012*, 2012.
- [4] Quoc-Huy Tran and Tat-Jun Chin, Gustavo Carneiro, Michael S. Brown, and David Suter. In Defence of RANSAC for Outlier Rejection in Deformable registration. In *ECCV*, volume 4, pages 274–287, 2012. http://dx.doi.org/10.1007/978-3-642-33765-9_20.
- [5] Trung T. Pham, Tat-Jun Chin, Jin Yu, and D. Suter. The random cluster model for robust geometric fitting. In *CVPR2012*, pages 710–717, July 2012. <http://doi.ieeecomputersociety.org/10.1109/CVPR.2012.6247740>.
- [6] Xue Zhou, Xi Li, Tat-Jun Chin, and D. Suter. Adaptive human silhouette reconstruction based on the exploration of temporal information. In *ICASSP2012*, pages 1005–1008, March 2012. <http://doi.ieeecomputersociety.org/10.1109/ICASSP.2012.6288055>.
- [7] Trung T. Pham, Tat-Jun Chin, Jin Yu, and David Suter. Simultaneous sampling and multi-structure fitting with adaptive reversible jump MCMC. In *Advances in Neural Information Processing Systems 24*, pages 540–548, 2011. Editors J. Shawe-Taylor and R.S. Zemel and P. Bartlett and F.C.N. Pereira and K.Q. Weinberger http://books.nips.cc/papers/files/nips24/NIPS2011_0383.pdf.

- [8] Jin Yu, Anders Eriksson, Tat-Jun Chin, and D. Suter. An adversarial optimization approach to efficient outlier removal. In *ICCV2011*, pages 309–406, 2011, (oral presentation). <http://doi.ieeecomputersociety.org/10.1109/ICCV.2011.6126268>.
- [9] Hoi Sim Wong, Tat-Jun Chin, Jin Yu, and D. Suter. Dynamic and hierarchical multi-structure geometric model fitting. In *ICCV2011*, pages 1044–1051, 2011. <http://doi.ieeecomputersociety.org/10.1109/ICCV.2011.6126350>.
- [10] N. A. Zaidi, D. Squire, and D. Suter. A gradient-based metric learning algorithm for k-nn classifiers. In *AI2010: ADVANCES IN Artificial Intelligence*, volume 6464/2011, pages 194–203, 2011. http://dx.doi.org/10.1007/978-3-642-17432-2_20.
- [11] Jin Yu, Tat-Jun Chin, and D. Suter. A global optimization approach to robust multi-model fitting. In *CVPR2011*, pages 2041–2048, 2011. <http://doi.ieeecomputersociety.org/10.1109/CVPR.2011.5995608>.
- [12] Ba-Tuong Vo Reza Hoseinnezhad, Ba-Ngu Vo and David Suter. Bayesian integration of audio and visual information for multi-target tracking using a cb-member filter. In *ICASSAP 2011*, pages 2300–2303, 2011.
- [13] Hoi Sim Wong, Tat Jun Chin, Jin Yu, and D. Suter. Efficient multi-structure robust fitting with incremental top-k lists comparison. In *ACCV2010*, volume 6495/2011, pages 553–564, 2010. http://dx.doi.org/10.1007/978-3-642-19282-1_44.
- [14] Tat-Jun Chin, Jin Yu, and D. Suter. Accelerated hypothesis generation for multi-structure robust fitting. In Kostas Daniilidis, Petros Maragos, and Nikos Paragios, editors, *Computer Vision - ECCV2010*, volume 6315 of *Lecture Notes in Computer Science*, pages 533–546. Springer Berlin / Heidelberg, 2010. http://dx.doi.org/10.1007/978-3-642-15555-0_39.
- [15] Tat-Jun Chin, Hanzi Wang, and D. Suter. Multi-structure model selection via kernel optimisation. In *CVPR2010*, pages 3586–3593, 2010. <http://doi.ieeecomputersociety.org/10.1109/CVPR.2010.5539931>.
- [16] N. A. Zaidi, D. Squire, and D. Suter. BoostML: An adaptive metric learning for nearest neighbour classification. In *ADVANCES IN KNOWLEDGE DISCOVERY AND DATA MINING*, volume 6118/2010, pages 142–149, 2010. http://dx.doi.org/10.1007/978-3-642-13657-3_17.
- [17] Hanzi Wang, Tat-Jun Chin, and D. Suter. Visual localization and segmentation based on foreground/background modeling. In *ICASSAP 2010*, pages 1158–1161, 2010. <http://doi.ieeecomputersociety.org/10.1109/ICASSP.2010.5495372>.

- [18] Liang Li, Hanzi Wang, Tat-Jun Chin, D. Suter, and Shusheng Zhang. Retrieving 3d CAD models using 2d images with optimized weights. In *Image and Signal Processing (CISP), 2010 3rd International Congress on*, volume 4, pages 1586–1589, oct. 2010. <http://doi.ieeecomputersociety.org/10.1109/CISP.2010.5646952>.
- [19] Tat-Jun Chin, Hanzi Wang, and D. Suter. The ordered residual kernel for robust motion subspace clustering. In *NIPS2009*, 2009. http://books.nips.cc/papers/files/nips22/NIPS2009_0504.pdf.
- [20] Tat-Jun Chin, Hanzi Wang, and D. Suter. Robust Fitting of Multiple Structures: The Statistical Learning approach. In *ICCV2009*, pages 413–420, 2009. <http://doi.ieeecomputersociety.org/10.1109/ICCV.2009.5459150>.
- [21] Ba-Ngu Vo, Ba-Tuong Vo, Nam Trung Pham, and D. Suter. Bayesian multi-object estimation from image observations. In *12th International Conference on Information Fusion*, pages 890–898, 2009.
- [22] Tat-Jun Chin and D. Suter. Keypoint induced distance profiles for visual recognition. In *CVPR2009*, pages 1239–1246, 2009. <http://doi.ieeecomputersociety.org/10.1109/CVPR.2009.5206734>.
- [23] R. Hoseinezhad, B-N Vo, and D. Suter. Fast segmentation of multiple motions. In *Cognitive Systems with Interactive Sensors (COGIS09)*, 2009.
- [24] R. Hoseinezhad, B-N Vo, and D. Suter. Fast single-view people tracking. In *Cognitive Systems with Interactive Sensors (COGIS09)*, 2009.
- [25] R. Jarvis S. Effendi and D. Suter. Fast stereo with background removal using phase correlation. In *IVCNZ2008*, 2008. <http://doi.ieeecomputersociety.org/10.1109/IVCNZ.2008.4762137>.
- [26] N. A. Zaidi and D. Suter. Object detection using a cascade of classifiers. In *DICTA2008*, pages 600–605, 2008. <http://doi.ieeecomputersociety.org/10.1109/DICTA.2008.55>.
- [27] E-H. Lim and D. Suter. Unsupervised plane data and plane patches clustering for 3d terrestrial urban modelling based on modified dirichlet process mixture model method. In *VIIP2008*, 2008.
- [28] N. A. Zaidi and D. Suter. Confidence rated boosting algorithm for generic object detection. In *ICPR2008*, 2008. <http://doi.ieeecomputersociety.org/10.1109/ICPR.2008.4761184>.
- [29] A. Shaji, S. Chandran, and D. Suter. Manifold optimisation for motion factorisation. In *ICPR2008*, 2008. <http://doi.ieeecomputersociety.org/10.1109/ICPR.2008.4761367>.

- [30] H. Zhou and D. Suter. Improving Gaussian Processes Classification by spectral data reorganizing. In *ICPR2008*, 2008. <http://doi.ieeecomputersociety.org/10.1109/ICPR.2008.4761790>.
- [31] H. Zhou, L. Wang, and D. Suter. Human motion recognition using Gaussian Processes Classification. In *ICPR2008*, 2008. <http://doi.ieeecomputersociety.org/10.1109/ICPR.2008.4761140>.
- [32] H. Zhou and D. Suter. Improved building detection by Gaussian Processes Classification via feature space rescale and spectral kernel selection. In *CVPR2008*, 2008. <http://doi.ieeecomputersociety.org/10.1109/CVPR.2008.4587463>.
- [33] E-H. Lim and D. Suter. Multi-scale conditional random fields for over-segmented irregular 3d point clouds classification. In *OTCBVS workshop (held in conjunction with CVPR2008)*, 2008. <http://doi.ieeecomputersociety.org/10.1109/CVPRW.2008.4563064>.
- [34] L. Wang and D. Suter. Recognizing human activities from silhouettes: Motion subspace and factorial discriminative graphical model. In *CVPR2007*, 2007. <http://doi.ieeecomputersociety.org/10.1109/CVPR.2007.383298>.
- [35] EeHui Lim and D. Suter. Conditional random field for 3d point clouds with adaptive data reduction. In *NSAGEM 2007*, pages 404–408, 2007. <http://doi.ieeecomputersociety.org/10.1109/CW.2007.30>.
- [36] A. Shaji, S. Chandran, B. Siddiquie, and D. Suter. Human pose extraction from monocular videos using constrained non-rigid factorization. In *BMVC 2007*, 2007.
- [37] Tat-Jun Chin, Liang Wang, Konrad Schindler, and D. Suter. Extrapolating learned manifolds for human activity recognition. In *ICIP 2007*, volume 1, pages 381–384, 2007. <http://doi.ieeecomputersociety.org/10.1109/ICIP.2007.4378971>.
- [38] H. Zhou and D. Suter. Man-made structure segmentation using Gaussian Processes and wavelet features. In *ICIP 2007*, volume 4, pages 349–352, 2007. <http://doi.ieeecomputersociety.org/10.1109/ICIP.2007.4380026>.
- [39] H. Zhou and D. Suter. Fast sparse Gaussian Processes learning for man-made structure classification. In *Online Learning for Classification Workshop 2007*, 2007. <http://doi.ieeecomputersociety.org/10.1109/CVPR.2007.383441>.
- [40] J. Cheong, N. Faggian, G. Langs, D. Suter, and F. Cicuttini. A comparison of model-based methods for knee cartilage segmentation. In *2nd International Conference on Computer Vision Theory and Applications VISAPP2007*, pages 290–295, 2007.

- [41] J. Cheong, N. Faggian, D. Suter, and F. Cicuttini. Automatic segmentation of human tibial cartilage. In *The Fourth IASTED International Conference on Signal Processing, Pattern Recognition, and Applications SPPRA 2007*, pages 368–373, 2007.
- [42] R. Hoseinnezhad, A. Bab-Hadiashar, and D. Suter. Finite sample bias of robust scale estimators in computer vision problems. In *Lecture Notes in Computer Science, International Symposium on Visual Computing (ISVC06)*, volume 4291, pages 445–454, Heidelberg, 2006. Springer-Verlag. http://dx.doi.org/10.1007/11919476_45.
- [43] E-H. Lim and D. Suter. Occlusion removal in image for 3d urban modelling. In *Image and Vision Computing, New Zealand, Nov. 2006*, pages 191–196, 2006.
- [44] E-H. Lim and D. Suter. Classification of 3d lidar point clouds for urban modelling. In *Image and Vision Computing, New Zealand, Nov. 2006*, pages 149–154, 2006.
- [45] H. Zhou, D. Suter, and K. Schindler. A hybrid approach to man-made structure extraction from natural scenes. In *Image and Vision Computing, New Zealand, Nov. 2006*, pages 61–66, 2006.
- [46] L. Wang and D. Suter. Analyzing human movements from silhouettes using manifold learning. In *Int. Conf. on Advanced Video and Signal-based Surveillance*, 2006. <http://doi.ieeecomputersociety.org/10.1109/AVSS.2006.25>.
- [47] H. Zhou and D. Suter. A compact architecture for wireless video surveillance over CDMA network. In *Int. Conf. on Advanced Video and Signal-based Surveillance*, 2006. <http://doi.ieeecomputersociety.org/10.1109/AVSS.2006.4>.
- [48] Tat-Jun Chin and D. Suter. Improving the speed of kernel PCA on large scale datasets. In *Int. Conf. on Advanced Video and Signal-based Surveillance*, 2006. <http://doi.ieeecomputersociety.org/10.1109/AVSS.2006.66>.
- [49] T. Tangkuampien and D. Suter. Real-time human pose inference using kernel principal component pre-image approximations. In *British Machine Vision Conference BMVC2006*, pages 599–608, 2006.
- [50] T. Tangkuampien and D. Suter. 3D object pose inference via kernel principal component analysis with image euclidian distance (IMED). In *British Machine Vision Conference BMVC2006*, pages 137–146, 2006.
- [51] Tat-Jun Chin and David Suter. Incremental kernel PCA for efficient non-linear feature extraction. In *British Machine Vision Conference BMVC2006*, pages 939–948, 2006.

- [52] H. Wang, D. Suter, and Konrad Schindler. Effective appearance model and similarity measure for particle filtering and visual tracking. In *European Conference on Computer Vision (ECCV), Graz, Austria, May 7-13, 2006*, volume 3953 of *LNCS*, pages 606–618. Springer, 2006. http://dx.doi.org/10.1007/11744078_47.
- [53] T. Tangkuampien and D. Suter. Human motion de-noising via greedy kernel principal component analysis filtering. In *Proc. ICPR 2006*, volume 3, pages 457–460, 2006. <http://doi.ieeecomputersociety.org/10.1109/ICPR.2006.639>.
- [54] H. Wang and D. Suter. Background subtraction based on a robust consensus method. In *Proc. ICPR 2006*, volume 1, pages 223–226, 2006. <http://doi.ieeecomputersociety.org/10.1109/ICPR.2006.312>.
- [55] L. Wang and D. Suter. Informative shape representations for human action recognition. In *Proc. ICPR 2006*, volume 2, pages 1266–1269, 2006. <http://doi.ieeecomputersociety.org/10.1109/ICPR.2006.711>.
- [56] H. Wang and D. Suter. Efficient visual tracking by probabilistic fusion of multiple cues. In *Proc. ICPR 2006*, volume 4, pages 892–895, 2006. <http://doi.ieeecomputersociety.org/10.1109/99.714590>.
- [57] Tat-Jun Chin, Konrad Schindler, and David Suter. Incremental kernel SVD for face recognition with image sets. In *Proceedings 7th International Conference on Face and Gesture Recognition (FGR2006), Southampton, UK*, pages 461–466, 2006. <http://doi.ieeecomputersociety.org/10.1109/FGR.2006.67>.
- [58] Hanzi Wang and David Suter. A novel robust statistical method for background initialization and visual surveillance. In P.J. Narayanan, Shree K. Nayar, and Heung-Yeung Shum, editors, *Computer Vision – ACCV 2006*, volume 3851 of *LNCS*, pages 328–337. Springer, 2006. http://dx.doi.org/10.1007/11612032_34.
- [59] Tat-Jun Chin and David Suter. A new distance criterion for face recognition using image sets. In P.J. Narayanan, Shree K. Nayar, and Heung-Yeung Shum, editors, *Computer Vision – ACCV 2006*, volume 3851 of *LNCS*, pages 549–558. Springer, 2006. http://dx.doi.org/10.1007/11612032_56.
- [60] Mohamed Gobara and David Suter. Feature detection with an improved anisotropic filter. In P.J. Narayanan, Shree K. Nayar, and Heung-Yeung Shum, editors, *Computer Vision – ACCV 2006*, volume 3852 of *LNCS*, pages 643–652. Springer, 2006. http://dx.doi.org/10.1007/11612704_64.
- [61] Tat-Jun Chin, James U, Konrad Schindler, and David Suter. Face recognition from video by matching image sets. In *Proc. Digital Image Com-*

- puting: *Techniques and Applications, Cairns, Australia*, pages 188–194, 2005. <http://doi.ieeecomputersociety.org/10.1109/DICTA.2005.36>.
- [62] J. Cheong, D. Suter, and F. Cicuttini. Development of semi-automatic segmentation methods for measuring tibial cartilage volume. In *Proc. Digital Image Computing: Techniques and Applications, Cairns, Australia*, pages 307–314, 2005. <http://doi.ieeecomputersociety.org/10.1109/DICTA.2005.26>.
- [63] J. Cheong, D. Suter, and F. Cicuttini. A semi-automatic system for measuring tibial cartilage volume. In *Proc. IEEE Tencon'05, Melbourne,, Australia*, 2005. <http://doi.ieeecomputersociety.org/10.1109/TENCON.2005.301261>.
- [64] H. Wang and D. Suter. Background initialization with a new robust statistical approach. In *IEEE International Workshop on Visual Surveillance and Performance Evaluation of Tracking and Surveillance (VS-PETS'05)*, pages 153–159, 2005. <http://doi.ieeecomputersociety.org/10.1109/VSPETS.2005.1570910>.
- [65] K. Schindler and D. Suter. Two-view multibody structure-and-motion with outliers. In *Proc. IEEE Conference in Computer Vision and Pattern Recognition, CVPR2005*, volume 2, pages 676–683. IEEE, 2005. <http://doi.ieeecomputersociety.org/10.1109/CVPR.2005.355>.
- [66] H. Wang and D. Suter. Tracking and segmenting people with occlusions by a sample consensus based method. In *Proc. ICIP 2005*, volume 2, pages 410–413, 2005. <http://doi.ieeecomputersociety.org/10.1109/ICIP.2005.1530079>.
- [67] H. Wang and D. Suter. A re-evaluation of mixture-of-gaussian background modeling. In *Proc. ICASSP 2005*, pages 1017–1020, 2005. <http://doi.ieeecomputersociety.org/10.1109/ICASSP.2005.1415580>.
- [68] H. Wang and D. Suter. Robust fitting by adaptive-scale residual consensus. In T. Pajdla and J. Matas, editors, *Lecture Notes in Computer Science, Proceedings ECCV2004*, volume 3023, pages 107–118, Heidelberg, 2004. Springer-Verlag. http://dx.doi.org/10.1007/978-3-540-24672-5_9.
- [69] P. Chen and D. Suter. Subspace-based face recognition: outlier detection and a new distance criterion. In *Proceedings ACCV2004*, pages 830–835, 2004.
- [70] P. Chen and D. Suter. Shift-invariant wavelet denoising using interscale dependency. In *ICIP-2004, Singapore*, volume 2, pages 1005–1008, 2004. <http://doi.ieeecomputersociety.org/10.1109/ICIP.2004.1419471>.
- [71] H. Wang and D. Suter. False-peaks-avoiding mean shift method for unsupervised peak-valley sliding image segmentation. In *Proceedings 7th International Conference on Digital*

- Image Computing: Techniques and Applications (DICTA '03)*, Sydney, pages 581–590, 2003.
- [72] H. Wang and D. Suter. Color image segmentation using global information and local homogeneity. In *Proceedings 7th International Conference on Digital Image Computing: Techniques and Applications (DICTA '03)*, Sydney, pages 89–98, 2003.
- [73] D. Suter, P. Chen, and H. Wang. Extracting motion from images: Robust optic flow and structure from motion. In *Proceedings Australia-Japan Advanced Workshop on Computer Vision, 9-11 Sept. 2003*, Adelaide, Australia, pages 64–69, 2003.
- [74] H. Wang and D. Suter. A model-based range image segmentation algorithm using a novel robust estimator. In *3rd Int'l Workshop on Statistical and Computational Theories of Vision (in conjunction with ICCV'03)*, Nice, France, October 2003.
- [75] H. Wang and D. Suter. Variable bandwidth QMDPE and its application in robust optic flow estimation. In *Proceedings ICCV03, International Conference on Computer Vision, Nice, France*, pages 178–183, 2003. <http://doi.ieeecomputersociety.org/10.1109/ICCV.2003.1238337>.
- [76] D. Suter and H. Wang. Robust fitting using mean shift: applications in computer vision. In *ICORS2003: International Conference on Robust Statistics, Antwerp, Belgium*, (abstract only), 2003.
- [77] H. Wang and D. Suter. A novel robust method for large numbers of gross errors. In *Proceedings ICARCV2002*, pages 326–331, 2002. <http://doi.ieeecomputersociety.org/10.1109/ICARCV.2002.1234842>.
- [78] H. Wang and D. Suter. LTSD: A highly efficient symmetry-based robust estimator. In *Proceedings ICARCV2002*, pages 332–337, 2002. <http://doi.ieeecomputersociety.org/10.1109/ICARCV.2002.1234843>.
- [79] D. Suter, T. Hamel, and R. Mahony. Visual servo control using homography estimation for the stabilization of an x4-flyer. In *Proceedings 41st IEEE Conference on Decision and Control (CDC)*, volume 3, pages 2872–2877, 2002. <http://doi.ieeecomputersociety.org/10.1109/CDC.2002.1184284>.
- [80] A. Bab-Hadiashar, N. Gheissari, and D. Suter. Robust model based motion segmentation. In R. Kasturi, D. Laurendeau, and G. Suen, editors, *Proceedings of ICPR2002*, volume 2, pages 753–757, 2002.
- [81] S. Boukir and D. Suter. Application of rigid motion geometry to film restoration. In *Proceedings of ICPR2002*, volume 6, pages 360–364, 2002.

- [82] A. Bab-Hadiashar, D. Suter, and R. Hesami. Robust fitting for pattern recognition. In *Proceedings of 6th Digital Image Computing: Techniques and Applications (DICTA2002) conference*, pages 358–363, 2002.
- [83] F. Chen and D. Suter. Motion estimation for noise reduction in historical films: Mpeg encoding effects. In *Proceedings of 6th Digital Image Computing: Techniques and Applications (DICTA2002) conference*, pages 207–212, 2002.
- [84] P. Tissainayagam and D. Suter. Performance measures for assessing contour trackers. In *Proceedings of 5th Asian Conference on Computer Vision (ACCV2002)*, pages 314–319, 2002.
- [85] P. Tissainayagam and D. Suter. Empirical evaluation on the performance of contour trackers. In *Proc., Third Workshop on Empirical Evaluation Methods in Computer Vision Hawaii, USA*, 2001.
- [86] P. Tissainayagam and D. Suter. Visual tracking of multiple objects with automatic motion model switching. In *ICPR'2000, Barcelona, Spain*, pages 1146–1149, 2000. <http://doi.ieeecomputersociety.org/10.1109/ICPR.2000.903745>.
- [87] A. Bab-Hadiashar and D. Suter. Simultaneous model recovery and segmentation for range image analysis. In *ACCV2000, Taipei, Taiwan*, pages 467–471, 2000.
- [88] A. Bab-Hadiashar and D. Suter. Outlier resistant GAIC based visual data segmentation. In *ACCV2000, Taipei, Taiwan*, pages 1174–1179, 2000.
- [89] A. Bab-Hadiashar and D. Suter. Simultaneous model recovery and segmentation using visual data. In *DICTA '99, Perth, Australia*, pages 241–246, 1999.
- [90] P. Tissainayagam and D. Suter. Contour tracking in image sequences. In *DICTA '99, Perth, Australia*, pages 110–115, 1999.
- [91] P. Tissainayagam and D. Suter. Performance of visual tracking algorithms. In *DICTA '99, Perth, Australia*, pages 206–211, 1999.
- [92] P. Tissainayagam and D. Suter. Performance prediction and analysis for linear visual trackers. In *Irish Machine Vision and Image Processing Conference IMVIP'99*, pages 131–147, 1999.
- [93] A Bab-Hadiashar and D. Suter. Motion segmentation: A robust approach. In *Proceedings of Interpretation of Visual Motion Workshop*, pages 3–9, 1998.

- [94] A. Bab-Hadiashar and D. Suter. Robust range segmentation. In *14th International Conference on Pattern Recognition - ICPR'98*, volume 2, pages 969–971, 1998. <http://doi.ieeecomputersociety.org/10.1109/ICPR.2006.312>.
- [95] A. Bab-Hadiashar and D. Suter. Robust motion segmentation using rank ordering estimators. In *Lecture Notes in Computer Science: 1352, Proceedings ACCV'98, Hong Kong*, volume 2, pages 599–606, 1998. http://dx.doi.org/10.1007/3-540-63931-4_26.
- [96] A. Bab-Hadiashar and D. Suter. Robust total least squares based optic flow computation. In *Lecture Notes in Computer Science: 1352, Proceedings ACCV'98, Hong Kong*, volume 1, pages 566–573, 1998. http://dx.doi.org/10.1007/3-540-63930-6_168.
- [97] F. Chen and D. Suter. Multiscale image representation and edge detection. In *Lecture Notes in Computer Science: 1352, Proceedings ACCV'98, Hong Kong*, volume 2, pages 49–56, 1998. http://dx.doi.org/10.1007/3-540-63931-4_19.
- [98] F. Chen and D. Suter. Image coordinate transformation based on multiple order div-curl vector splines. In *14th International Conference on Pattern Recognition - ICPR'98*, volume 1, pages 518–520, 1998. <http://doi.ieeecomputersociety.org/10.1109/ICPR.1998.711194>.
- [99] P. Tissainayagam and D. Suter. Visual tracking with multiple motion models. In *IAPR Machine Vision Applications (MVA'98), Chiba, Japan*, pages 414–417, 1998.
- [100] P. Tissainayagam and D. Suter. Visual tracking and motion determination using the IMM algorithm. In *14th International Conference on Pattern Recognition - ICPR'98*, volume 1, pages 289–291, 1998. <http://doi.ieeecomputersociety.org/10.1109/ICPR.1998.711138>.
- [101] P. Tissainayagam and D. Suter. Visual feature tracking with automatic motion model selection. In *Proc., JCIS, N.C. USA , Nov. 1998*, pages 322–325, 1998.
- [102] P. Tissainayagam and D. Suter. Object tracking in image sequences using multiple hypothesis approach. In *Proc., JCIS, N.C. USA , Nov. 1998*, pages 473–475, 1998.
- [103] P. Tissainayagam and D. Suter. Comparison of corner detectors for tracking features in image sequences. In H. Pan, M. Brooks, D. McMichael, and G. Newsam, editors, *Proc., IAIF'97, Adelaide, Nov. 1997*, pages 171–181, 1997.
- [104] A. Bab-Hadiashar and D. Suter. Motion based segmentation using robust statistics. In H. Pan, M. Brooks, D. McMichael, and G. Newsam, editors, *Proc., IAIF'97, Adelaide, Nov. 1997*, pages 271–280, 1997.

- [105] F. Chen and D. Suter. Fast evaluation of vector splines in two dimensions. In A. Sydow, editor, *Proc. 15th IMACS'97 World Conference on Scientific Computation, Modelling and Applied Mathematics, Berlin, August 1997*, volume 1, pages 469–474. Wissenschaft & Technik Verlag, 1997.
- [106] F. Chen and D. Suter. Surface reconstruction using multiple order Laplacian splines. In *Proc. The 33rd Australian Applied Mathematics Conference, Lorne, Victoria, 1997*. (abstract).
- [107] A. Bab-Hadiashar and D. Suter. Optic flow calculation using robust statistics. In *Proceedings of CVPR97, Puerto Rico*, pages 988–993, New York, June 1997. IEEE. <http://doi.ieeecomputersociety.org/10.1109/CVPR.1997.609448>.
- [108] F. Chen and D. Suter. Elastic spline models for human cardiac motion estimation. In *Proceedings of IEEE Non-rigid and Articulated Motion Workshop, June 16, 1997, Puerto Rico*, pages 120–127, New York, June 1997. IEEE. <http://doi.ieeecomputersociety.org/10.1109/NAMW.1997.609862>.
- [109] A. Bab-Hadiashar and D. Suter. Motion segmentation using robust motion estimation. In *Proceedings Image Segmentation Workshop 1996, Sydney*, pages 7–11. The Australian Pattern Recognition Society, 1996.
- [110] F. Chen and D. Suter. Modelling and segmentation using Laplacian splines and radial basis functions. In *Proceedings Image Segmentation Workshop 1996, Sydney*, pages 115–119. The Australian Pattern Recognition Society, 1996.
- [111] A. Bab-Hadiashar and D. Suter. Robust optic flow estimation using least median of squares. In *Proc. ICIP, Lausanne, Switzerland, Sept. 1996*, pages 513–516, 1996. <http://doi.ieeecomputersociety.org/10.1109/ICIP.1996.559546>.
- [112] D. Suter and P. S. Richardson. Historical film restoration and video coding. In *Proceedings of PCS'96, Melbourne, Aust, March 1996*, pages 389–394, 1996.
- [113] A. Bab-Hadiashar, D. Suter, and R. Jarvis. Optic flow computation using interpolating thin-plate splines. In *Proceedings ACCV'95 Second Asian Conference on Computer Vision*, volume III, pages 452–456, 1995.
- [114] A. Bab-Hadiashar, D. Suter, and R. Jarvis. Two-dimensional motion extraction using image interpolation technique. In A. G. Tescher, editor, *Applications of Digital Image processing XVIII, San Diego, July 1995*, pages 271–281. SPIE, 1995.
- [115] P. S. Richardson and D. Suter. Restoration of historical film for digital compression: A case study. In *Proceedings of ICIP-95, Washington D.C., Oct. 1995*, pages II 49–52. IEEE, 1995. <http://doi.ieeecomputersociety.org/10.1109/ICIP.1995.537412>.

- [116] D. Suter. Divergence-free wavelets made easy. In A. F. Laine, editor, *Wavelet Applications in Signal and Image Processing III, San Diego, July 1995*, pages 102–115. SPIE, 1995. <http://dx.doi.org/10.1117/12.217642>.
- [117] Y. Wu and D. Suter. Noisy image sequence registration and segmentation. In *Proceedings of Second Asian Conference on Computer Vision, ACCV'95*, pages 1533–1537, Singapore, December 1995.
- [118] Y. Wu and D. Suter. Historical film processing. In A. G. Tescher, editor, *Applications of Digital Image processing XVIII, San Diego, July 1995*, pages 289–300. SPIE, 1995. <http://dx.doi.org/10.1117/12.217412>.
- [119] D. Suter. Motion estimation and vector splines. In *Proc. CVPR'94, Seattle WA*, pages 939–942. IEEE, June 1994. <http://doi.ieeecomputersociety.org/10.1109/CVPR.1994.323929>.
- [120] D. Suter. Thin-plate splines in computer vision. In *Proceedings of Australasian Workshop on Thin-plate Splines*, Sydney, February 1994.
- [121] D. Suter. Multipole methods in visual reconstruction. In B. C. Vemuri, editor, *Geometric Methods in Computer Vision II, San Diego, July 1993*, pages 16–26. SPIE, 1993. <http://dx.doi.org/10.1117/12.146628>.
- [122] D. Suter. Mixed finite elements and whitney forms in visual reconstruction. In B. C. Vemuri, editor, *Geometric Methods in Computer Vision II, San Diego, July 1993*, pages 51–62. SPIE, 1993. <http://dx.doi.org/10.1117/12.146645>.
- [123] D. Suter. Evaluation of splines using multipole-like methods. In *Proc. 29th Applied mathematics Conference*, page C66, Adelaide, February 1993. Australian Mathematical Society, Division of Applied Mathematics.
- [124] D. Suter. Coupled derivative/mixed finite element approach to visual reconstruction. In A. K. Pani and R. S. Anderssen, editors, *Mini Conference on Inverse Problems in Partial Differential Equations*, volume 31, pages 222–246, Canberra, Australia, 1992. Australian National University, Centre for Mathematical Analysis.
- [125] D. Suter. Efficient recovery of “time to crash” and rotation from optic flow. In *ICARCV-92 2nd International Conference on Automation, Robotics and Computer Vision*, volume 1, pages CV11.4.1–CV11.4.5, Singapore, September 1992. Institution of Engineers, Singapore.
- [126] D. Suter. Vector spline and radial basis function methods in visual motion analysis. In *Advances in Computer Methods for Partial Differential Equations - VII*, pages 714–720, Brunswick, New Jersey, June 1992. IMACS.

- [127] J. N. H. Garwoli and D. Suter. Multi-Media and Image Compression with IFS and Wavelets. In *1st Australian Multi-Media Communications Applications and Technology Workshop*, pages 223–228, 1991.
- [128] D. Mansor and D. Suter. Implementation of visual reconstruction networks - alternatives to resistive networks. In *Proc. Int. Joint. Conf. on Neural Networks (IJCNN'91 - Singapore)*, pages 1898–1905, November 1991.
- [129] D. Suter. Mixed finite element methods in motion analysis. In *DICTA-91 Digital Image Computing: Techniques and Applications*, pages 397–404, Melbourne, Australia, December 1991. Australian Pattern Recognition Society.
- [130] D. Suter. Generalization of the harris “coupled depth-slope” analog visual reconstruction networks. In *Proceedings of IJCNN-91-Seattle*, pages I 729–739, Seattle, July 1991. <http://doi.ieeecomputersociety.org/10.1109/IJCNN.1991.155270>.
- [131] D. Suter. Mixed finite element and neural network methods of visual reconstruction. In *13th IMACS World Congress on Computation and Applied Mathematics*, volume 4, pages 1946–1949, Dublin, July 1991.
- [132] D. Suter. Coupled depth-slope model based upon augmented Lagrangian techniques. In B. C. Vemuri, editor, *Geometric Methods in Computer Vision*, volume 1570, pages 129–139. SPIE, 1991. <http://dx.doi.org/10.1117/12.48419>.
- [133] D. Suter and H. A. Cohen. Incorporating knowledge via regularization theory: applications in vision and image processing. In C. J. Barter and M. J. Brooks, editors, *Lecture Notes in Computer Science, AI'88, 2nd Australian Joint Artificial Intelligence Conference, Adelaide, Australia, Nov. 1988 Proceedings*, volume 406 of *Lecture Notes in Computer Science*, pages 379–394, Berlin, 1990. Springer Verlag. http://dx.doi.org/10.1007/3-540-52062-7_91.
- [134] D. Suter. Parallel event driven simulation. In *9th Aust. Microelectronics Conference*, pages 211–213, July 1990.
- [135] D. Suter. Inference in visual reconstruction. In *Proc. AI'89, Melbourne, Australia*, pages 58–67, 1989.
- [136] D. Suter. A new optimization method: applications in interpolation and computer vision. In *Proc. ACSC-12, Wollongong, Aust.*, pages 305–316, Feb. 1989.
- [137] D. Suter. Analog signal processing: Applications in computer vision. In *Proc. 1989 Aust. Symp. on Signal Processing and Applications, Adelaide*, pages 236–239, April 1989.

- [138] D. Suter. Transputer based stereo vision system. In *Proc. Australian Transputer and OCCAM User Group, Melb. Aust.*, pages 5–10, June 1989.
- [139] D. Suter, X. Deng, H. Cohen, and T. Dillon. Development and implementation of parallel vision algorithms. In *ViSion89, Chicago*, pages 1–14, April 1989.
- [140] H. Cohen and D. Suter. Adaptive enhancement of perceived contrast in diffuse images: Case study: Electron microscope images. In *ICIP89, Singapore*, pages 16–20, September 1989.
- [141] J. You, D. Suter, X. Deng, and H. Cohen. Parallel implementation of vision algorithms. In *Beijing International Symposium of Young Computer Scientists*, pages 542–544, August 1989.
- [142] D. Suter and X. Deng. Neural net simulation on transputers. In *Proc. IEEE Systems, Man, and Cybernetics Conf., Beijing*, pages 694–697, Aug. 1988. <http://doi.ieeecomputersociety.org/10.1109/ICSMC.1988.754394>.
- [143] D. Suter and X. Deng. Neural net simulation on transputers. In *Proc. Australian Transputer and OCCAM User Group, Melb. Aust.*, pages 43–48, June 1988.
- [144] D. Suter. Neural net surface interpolation. In *Proc. 1987 Int'l. Conf. Systems, Man, and Cybernetics, Alexandria, VA*, pages 118–123, Oct. 1987.
- [145] D. Suter and H. A. Cohen. Modelling of texture perception. In *Proc. Int'l. Conf. Modelling and Simulation, Melb. Aust.*, pages 430–435, Oct. 1987.
- [146] D. Suter and H. A. Cohen. Fractals: Representations for visual recognition and for graphics. In *Ausgraph 87, Perth Aust.*, page 25 pages, May 1987.
- [147] D. Suter. Planning in machine vision tasks. In *Proc. 1st Australian Artificial Intelligence Congress, Melb. Aust.*, page 19 pages in Section E (Robotics), Nov. 1986.

Technical Report

- [1] K. Schindler and D. Suter. Object detection by global contour shape. Technical Report MECSE-28-2006, Monash University, Clayton 3800, Australia, 2006.
- [2] P. Chen and D. Suter. A bilinear approach to the parameter estimation of a general heteroscedastic linear system with application to conic fitting. Technical Report MECSE-21-2006, Monash University, Clayton 3800, Australia, 2006.

- [3] T. Tangkuampien and D. Suter. Un-calibrated real-time markerless motion capture via kernel subspace mapping. Technical Report MECSE-1-2006, Monash University, Clayton 3800, Australia, 2006.
- [4] Pei Chen and D. Suter. Homography estimation and heteroscedastic noise - a first order perturbation analysis. Technical Report MECSE-32-2005, Monash University, Clayton 3800, Australia, 2005.
- [5] Hanzi Wang and D. Suter. Sacon: A consensus based model for background subtraction. Technical Report MECSE-15-2005, Monash University, Clayton 3800, Australia, 2005.
- [6] Tat-Jun Chin and D. Suter. A new bootstrapping strategy for the adaboost-based face detector. Technical Report MECSE-13-2005, Monash University, Clayton 3800, Australia, 2005.
- [7] Pei Chen and D. Suter. An analysis of linear subspace approaches for computer vision and pattern recognition (supersedes mecse-6-2003). Technical Report MECSE-9-2005, Monash University, Clayton 3800, Australia, 2005.
- [8] James U and D. Suter. Using synchronised firewire cameras for multiple viewpoint digital video capture. Technical Report MECSE-16-2004, Monash University, Clayton 3800, Australia, 2004.
- [9] James Cheong and D. Suter. A study on anti-geometric diffusion for the segmentation of human knee cartilage. Technical Report MECSE-15-2004, Monash University, Clayton 3800, Australia, 2004.
- [10] Hanzi Wang and D. Suter. A re-evaluation of Mixture-of-Gaussian background modeling. Technical Report MECSE-8-2004, Monash University, Clayton 3800, Australia, 2004.
- [11] Tat-Jun Chin and D. Suter. A study of the illumination cones method for face recognition under variable illumination. Technical Report MECSE-7-2004, Monash University, Clayton 3800, Australia, 2004.
- [12] Tat-Jun Chin and D. Suter. A study of the eigenface approach for face recognition. Technical Report MECSE-6-2004, Monash University, Clayton 3800, Australia, 2004.
- [13] Pei Chen and D. Suter. An iterative approach to recovering the missing data in a large low-rank: Application to SFM. Technical Report MECSE-3-2004, Monash University, Clayton 3800, Australia, 2004.
- [14] P. Chen and D. Suter. Shift invariant wavelet denoising using interscale dependency. Technical Report MECSE-2-2004, Monash University, Clayton 3800, Australia, 2004.

- [15] E. Beets, S. Boukir, and D. Suter. Aircraft pose estimation from homography. Technical Report MECSE-1-2004, Monash University, Clayton 3800, Australia, 2004.
- [16] D. Suter D. Tung and A. Bab-Hadiashar. Aircraft approach angle estimation: Vision based landing. Technical Report MECSE-28-2003, Monash University, Clayton 3800, Australia, 2003.
- [17] P. Chen and D. Suter. Recovering the missing components in a large noisy low-rank matrix: Application to sfm. Technical Report MECSE-25-2003, Monash University, Clayton 3800, Australia, 2003.
- [18] M. Gubara and D. Suter. Ascale invariant object detector: An implementation for license plate detection. Technical Report MECSE-9-2003, Monash University, Clayton 3800, Australia, 2003.
- [19] H. Wang and D. Suter. ASSC a new robust estimator for data with multiple structures. Technical Report MECSE-8-2003, Monash University, Clayton 3800, Australia, 2003.
- [20] P. Chen and D. Suter. An analysis of linear subspace approaches for computer vision and pattern recognition. Technical Report MECSE-6-2003, Monash University, Clayton 3800, Australia, 2003.
- [21] P. Chen and D. Suter. Subspace-based face recognition: outlier detection and a new distance criterion. Technical Report MECSE-5-2003, Monash University, Clayton 3800, Australia, 2003.
- [22] H. Wang and D. Suter. MDPE: A very robust estimator for model fitting and range image segmentation. Technical Report MECSE-3-2003, Monash University, Clayton 3800, Australia, 2003.
- [23] H. Wang and D. Suter. Robust scale estimation from true parameters of model. Technical Report MECSE-2-2003, Monash University, Clayton 3800, Australia, 2003.
- [24] H. Wang and D. Suter. False-peaks-avoiding mean shift method for unsupervised peak-valley sliding image segmentation. Technical Report MECSE-1-2003, Monash University, Clayton 3800, Australia, 2003.
- [25] P. Chen and D. Suter. A simple pixel-adaptive Bayesian approach to image denoising using wavelet interscale dependency. Technical Report MECSE-1-2002, Monash University, Clayton 3800, Australia, 2002.
- [26] H. Wang, A. Bab-Hadiashar, S. Boukir, and D. Suter. Outlier rejection based on repeated medians. Technical Report MECSE-1-2001, Monash University, Clayton 3800, Australia, 2001.

- [27] F. Chen and D. Suter. Motion estimation for noise reduction in historical film restoration. Technical Report MECSE-2000-02, Monash University, Clayton 3800, Australia, 2000.
- [28] P. Tissainayagam and D. Suter. Performance analysis of contour trackers. Technical Report MECSE-2000-1, Monash University, Clayton 3168, Australia, 2000.
- [29] A. Bab-Hadiashar and D. Suter. Outlier resistant GAIC based image data segmentation. Technical Report MECSE-99-1, Monash University, Clayton 3168, Australia, 1999.
- [30] P. Tissainayagam and D. Suter. Efficient contour tracking in extended image sequences. Technical Report MECSE-99-2, Monash University, Clayton 3168, Australia, 1999.
- [31] P. Tissainayagam and D. Suter. Tracking objects in image sequences. Technical Report MECSE-98-5, Monash University, Clayton 3168, Australia, 1998.
- [32] P. Tissainayagam and D. Suter. Variable motion determination and tracking using the IMM algorithm. Technical Report MECSE-98-4, Monash University, Clayton 3168, Australia, 1998.
- [33] P. Tissainayagam and D. Suter. Performance analysis of point-feature trackers. Technical Report MECSE-98-6, Monash University, Clayton 3168, Australia, 1998.
- [34] P. Tissainayagam and D. Suter. Performance analysis of corner detectors for tracking features in image sequences. Technical Report MECSE-97-3, Monash University, Clayton 3168, Australia, 1997.
- [35] P. Tissainayagam and D. Suter. Motion model selection for visual feature tracking. Technical Report MECSE-97-4, Monash University, Clayton 3168, Australia, 1997.
- [36] F. Chen and D. Suter. Fast evaluation of vector splines in three dimensions. Technical Report MECSE-97-6, Monash University, Clayton 3168, Australia, June 1997.
- [37] D. Suter. Geometric motion constraints for different camera models and for continuous and discrete motion: Rigid motion. Technical Report MECSE-1997-5, Monash University, Clayton 3168, Australia, December 1997.
- [38] A. Bab-Hadiashar and D. Suter. Practical insights on different flavours of rank ordering robust estimators. Technical Report MECSE-96-11, Monash University, Clayton 3168, Australia, November 1996.
- [39] A. Bab-Hadiashar, D. Suter, and R. Jarvis. Image interpolation based optic flow technique. Technical Report MECSE-96-1, Monash University, Clayton 3168, Australia, June 1996. <http://dx.doi.org/10.1117/12.217410>.

- [40] A. Bab-Hadiashar and D. Suter. Motion estimation using robust statistics. Technical Report MECSE-96-4, Monash University, Clayton 3168, Australia, June 1996.
- [41] A. Bab-Hadiashar and D. Suter. A robust total least squares estimator and its application in optic flow computation. Technical Report MECSE-96-9, Monash University, Clayton 3168, Australia, August 1996.
- [42] F. Chen and D. Suter. Multiple order Laplacian splines - including splines with tension. Technical Report MECSE-96-5, Monash University, Clayton 3168, Australia, June 1996.
- [43] F. Chen and D. Suter. Fast evaluation of vector splines in two dimensions. Technical Report MECSE-96-8, Monash University, Clayton 3168, Australia, June 1996.
- [44] D. Suter. Divergence-free wavelets made easy. Technical Report MECSE-94-2, Monash University, Clayton 3168, Australia, April 1994.
- [45] D. Suter. Vector spline and mixed finite element methods in motion analysis. Technical Report 2/92, La Trobe University, Bundoora 3083, Australia, January 1992.
- [46] D. Suter. Fast evaluation of multipoles without multipoles. Technical Report MECSE-92-1, Monash University, Clayton 3168, Australia, October 1992.
- [47] D. Mansor and D. Suter. An analogue circuit for first order regularization. Technical Report 2/91, La Trobe University, Bundoora 3083, Australia, March 1991.
- [48] D. Suter. Mixed finite element formulation of problems in visual reconstruction. Technical Report 2/90, La Trobe University, Department of Computer Science, Bundoora, 3083, Aust., January 1990.
- [49] D. Suter. Geiger-girosi mean field algorithm for edge detection. Technical Report 1/90, La Trobe University, Department of Computer Science, Bundoora, 3083, Aust., January 1990.

Miscellaneous

- [1] D. Suter. Image analysis - is it just applied statistical analysis and approximation theory? (Invited Talk) Advanced Concepts for Intelligent Systems 2010, Sydney, December, 2010.
- [2] D. Suter. Robust statistical fitting in computer vision - how do we characterise and exploit model/data "agreement"? (Invited Talk) CVPR Summer School, Kioloa NSW, January, 2010.

- [3] D. Suter. High dimensional data analysis in computer vision. (Keynote Talk) IEEE 8th Int. Conf. on Computer and Information Technology, Sydney, July 2008 <http://doi.ieeecomputersociety.org/10.1109/CIT.2008.4594637>.
- [4] D. Suter. Finding structure in computer vision data. (Keynote Talk) IVCNZ, Waikato Univeristy, Hamilton, New Zealand, December 2007.
- [5] D. Suter. Statistics of linear and non-linear subspace analysis. (Invited Talk) MIRU International Workshop on Computer Vision Hiroshima, Japan, July 29, 2007.
- [6] D. Comaniciu, R. Mester, K. Kanatani, and D. Suter (Eds.). Statistical Methods in Video Processing, Lecture Notes in Computer Science, vol 3247, Springer, Berlin, 2005. <http://dx.doi.org/10.1007/b104157>.
- [7] D. Suter and D. Comaniciu K. Katani (Guest Editors). Image and Vision Computing, vol. 22, no. 2, February 2004. <http://www.sciencedirect.com/science/article/pii/S0262885603001628>.
- [8] D. Suter (Guest Editor). International Journal of Image and Graphics, vol. 2, no. 2, April 2002.
- [9] D. Suter (Ed.). Proceedings of Statistical Methods in Video Processing workshop, 2002.
- [10] D. Suter and A. Bab-Hadiashar (Eds.). Proceedings of the Fifth Asian Conference on Computer Vision, 2002.
- [11] D. Suter and A. Bab-Hadiashar (Eds.). Proceedings of the Sixth Digital Image Computing: Techniques and Applications conference, 2002.
- [12] D. Suter. emerge report: Film restoration and processing, June 1997.
- [13] D. Suter. Motion estimation: Historical film restoration and coding, January 1996. The Second Workshop on Perceptive Systems 25-26 Jan., Curtin Uni. of Technology, Aust.
- [14] D. Suter. Inference in low level vision, September 1989. (abstract) 1989 Robertson Symposium, 19-24 Sept., ANU, Canberra, Aust., Research School of Biological Sciences and Centre for Visual Sciences, ANU.