

## Publication - D. Suter - (compiled January 7, 2025)

### Book

- [1] T-J Chin and **D. Suter**. *The Maximum Consensus Problem:Recent Algorithmic Advances*. Synthesis Lectures on Computer Vision (Eds. Gerard Medioni and Sven Dickinson). Morgan & Claypool, 2017, pp. 194–. 194 pp. ISBN: 9781627052863. DOI: [10.2200/S00757ED1V01Y201702COV011](https://doi.org/10.2200/S00757ED1V01Y201702COV011).
- [2] Alireza Bab-Hadiashar and David Suter. *Data Segmentation and Model Selection for Computer Vision*. Ed. by A. Bab-Hadiashar and D. Suter. Springer-Verlag, 2000. 236 pp. ISBN: 0-387-98815-7. DOI: [10.1007/978-0-387-21528-0](https://doi.org/10.1007/978-0-387-21528-0).

### Journal

- [1] John T Schousboe, Joshua R Lewis, Barret A Monchka, Siobhan B Reid, Michael J Davidson, Douglas Kimelman, Mohammad Jafari Jozani, Cassandra Smith, Marc Sim, Syed Zulqarnain Gilani, David Suter, and William D Leslie. “Simultaneous automated ascertainment of prevalent vertebral fracture and abdominal aortic calcification in clinical practice: role in fracture risk assessment”. In: *Journal of Bone and Mineral Research* 39.7 (May 2024), pp. 898–905. ISSN: 0884-0431. DOI: [10.1093/jbmr/zjae066](https://doi.org/10.1093/jbmr/zjae066). eprint: <https://academic.oup.com/jbmr/article-pdf/39/7/898/58737442/zjae066.pdf>.
- [2] Cassandra Smith, Marc Sim, Zaid Ilyas, Syed Zulqarnain Gilani, David Suter, Siobhan B. Reid, Barret A. Monchka, Mohammad Jafari Jozani, Gemma Figtree, John T. Schousboe, Joshua R. Lewis, and William D. Leslie. “Automated abdominal aortic calcification and major adverse cardiovascular events in people undergoing osteoporosis screening: the Manitoba Bone Mineral Density Registry”. In: *Journal of Bone and Mineral Research* (2024). accepted December 24, 2024.
- [3] WeiQin Chuah, Ruwan Tennakoon, Reza Hoseinnezhad, David Suter, and Alireza Bab-Hadiashar. “An Information-Theoretic Method to Automatic Shortcut Avoidance and Domain Generalization for Dense Prediction Task”. In: *IEEE Transactions on Pattern Analysis and Machine Intelligence* (2023). DOI: [10.1109/TPAMI.2023.3268640](https://doi.org/10.1109/TPAMI.2023.3268640).
- [4] Jack Dalla Via, Abadi K Gebre, Cassandra Smith, Zulqarnain Gilani, David Suter, Naeha Sharif, Pawel Szulc, John T Schousboe, Douglas P Kiel, Kun Zhu, William D. Leslie, Richard L Prince, Joshua R Lewis, and Marc Sim. “Machine-learning assessed abdominal aortic calcification is associated with long-term fall and fracture risk in community-dwelling older Australian women”. In: *Journal of Bone and Mineral Research* (2023). DOI: <https://doi.org/10.1002/jbmr.4921>. eprint: <https://asbmr.onlinelibrary.wiley.com/doi/pdf/10.1002/jbmr.4921>.
- [5] Najmeh Fayyazifar, Girish Dwivedi, David Suter, Selam Ahderom, Andrew Maiorana, Owen Clarkin, Saad Balamane, Nishita Saha, Benjamin King, Martin S. Green, Mehrdad Golian, and Benjamin J.W. Chow. “A novel convolutional neural network structure for differential diagnosis of wide QRS complex tachycardia”. In: *Biomedical Signal Processing and Control* 81 (2023), p. 104506. ISSN: 1746-8094. DOI: [10.1016/j.bspc.2022.104506](https://doi.org/10.1016/j.bspc.2022.104506).

- [6] Sundaram Muthu, Ruwan Tennakoon, Tharindu Rathnayake, Reza Hoseinnezhad, David Suter, and Alireza Bab-Hadiashar. “Generalized framework for image and video object segmentation using affinity learning and message passing GNNS”. In: *Computer Vision and Image Understanding* 236 (2023), p. 103812. ISSN: 1077-3142. DOI: <https://doi.org/10.1016/j.cviu.2023.103812>.
- [7] Naeha Sharif, Syed Zulqarnain Gilani, David Suter, Siobhan Reid, Pawel Szulc, Douglas Kimelman, Barret A. Monchka, Mohammad Jafari Jozani, Jonathan M. Hodgson, Marc Sim, Kun Zhu, Nicholas C. Harvey, Douglas P. Kiel, Richard L. Prince, John T. Schousboe, William D. Leslie, and Joshua R. Lewis. “Machine Learning for Abdominal Aortic Calcification Assessment from Bone Density Machine-Derived Lateral Spine Images”. In: *eBioMedicine* (2023). DOI: [10.1016/j.ebiom.2023.104676](https://doi.org/10.1016/j.ebiom.2023.104676).
- [8] Giang Truong, Huu Le, Erchuan Zhang, David Suter, and Syed Zulqarnain Gilani. “Unsupervised Learning for Maximum Consensus Robust Fitting: A Reinforcement Learning Approach”. In: *IEEE Transactions on Pattern Analysis and Machine Intelligence* 45.3 (2023), pp. 3890–3903. DOI: [10.1109/TPAMI.2022.3178442](https://doi.org/10.1109/TPAMI.2022.3178442).
- [9] Weiqin Chuah, Ruwan Tennakoon, Reza Hoseinnezhad, David Suter, and Alireza Bab-Hadiashar. “Semantic Guided Long Range Stereo Depth Estimation for Safer Autonomous Vehicle Applications”. In: *IEEE Transactions on Intelligent Transportation Systems* 23.10 (Oct. 2022), pp. 18916–18926. DOI: [10.1109/TITS.2022.3170870](https://doi.org/10.1109/TITS.2022.3170870).
- [10] Huu Le, Tat-Jun Chin, Anders Eriksson, Thanh-Toan Do, and David Suter. “Deterministic Approximate Methods for Maximum Consensus Robust Fitting”. In: *IEEE Transactions on Pattern Analysis and Machine Intelligence* (Mar. 2021), pp. 842–857. ISSN: 0162-8828. DOI: [10.1109/TPAMI.2019.2939307](https://doi.org/10.1109/TPAMI.2019.2939307).
- [11] D W Tan, S Z Gilani, M Boutrus, G A. Alvares, A J.O. Whitehouse, A Mian, D Suter, and M T. Maybery. “Facial asymmetry in parents of children on the autism spectrum”. In: *Autism Research* (2021). DOI: [10.1002/aur.2612](https://doi.org/10.1002/aur.2612).
- [12] Guobao Xiao, Hanzi Wang, Jiayi Ma, and David Suter. “Segmentation by Continuous Latent Semantic Analysis for Multi-structure Model Fitting”. In: *International Journal of Computer Vision* (2021). ISSN: 1573-1405. DOI: [10.1007/s11263-021-01468-6](https://doi.org/10.1007/s11263-021-01468-6).
- [13] Sundaram Muthu, Ruwan Tennakoon, Reza Hoseinnezhad, David Suter, and Alireza Bab-Hadiashar. “Motion segmentation of RGB-D sequences: Combining semantic and motion information using statistical inference”. In: *IEEE Trans. Image Processing* 29.1 (Dec. 2020), pp. 5557–5570. DOI: [10.1109/TIP.2020.2984893](https://doi.org/10.1109/TIP.2020.2984893).
- [14] Diana Tan, Murray Maybery, Syed Zulqarnain Gilani, Gail Alvares, Ajmal Mian, David Suter, and Andrew Whitehouse. “A broad autism phenotype expressed in facial morphology”. In: *Translational Psychiatry* 10.1 (2020). DOI: [10.1038/s41398-020-0695-z](https://doi.org/10.1038/s41398-020-0695-z).
- [15] H. Wang, G. Xiao, Y. Yan, and D. Suter. “Searching for Representative Modes on Hypergraphs for Robust Geometric Model Fitting”. In: *IEEE Transactions on Pattern Analysis and Machine Intelligence* 41.3 (Mar. 2019), pp. 697–711. ISSN: 0162-8828. DOI: [10.1109/TPAMI.2018.2803173](https://doi.org/10.1109/TPAMI.2018.2803173).
- [16] Guobao Xiao, Hanzi Wang, Yan Yan, and David Suter. “Superpixel-Guided Two-View Deterministic Geometric Model Fitting”. In: *International Journal of Computer Vision* (May 2018). ISSN: 1573-1405. DOI: [10.1007/s11263-018-1100-8](https://doi.org/10.1007/s11263-018-1100-8).
- [17] T. J. Chin, P. Purkait, A. Eriksson, and D. Suter. “Efficient Globally Optimal Consensus Maximisation with Tree Search”. In: *IEEE Transactions on Pattern Analysis and Machine Intelligence* 39.4 (Apr. 2017), pp. 758–772. ISSN: 0162-8828. DOI: [10.1109/TPAMI.2016.2631531](https://doi.org/10.1109/TPAMI.2016.2631531).
- [18] T. Lai, H. Wang, Y. Yan, G. Xiao, and D. Suter. “Efficient guided hypothesis generation for multi-structure epipolar geometry estimation”. In: *Computer Vision and Image Understanding* 154 (2017), pp. 152–165. ISSN: 10773142. DOI: [10.1016/j.cviu.2016.10.003](https://doi.org/10.1016/j.cviu.2016.10.003).

- [19] P. Purkait, T. J. Chin, A. Sadri, and D. Suter. “Clustering with Hypergraphs: The Case for Large Hyperedges”. In: *IEEE Transactions on Pattern Analysis and Machine Intelligence* PP.99 (2017), pp. 1–1. ISSN: 0162-8828. DOI: [10.1109/TPAMI.2016.2614980](https://doi.org/10.1109/TPAMI.2016.2614980).
- [20] A. Parra Bustos, T. J. Chin, A. Eriksson, H. Li, and D. Suter. “Fast Rotation Search with Stereographic Projections for 3D Registration”. In: *IEEE Transactions on Pattern Analysis and Machine Intelligence* 38.11 (Nov. 2016), pp. 2227–2240. ISSN: 0162-8828. DOI: [10.1109/TPAMI.2016.2517636](https://doi.org/10.1109/TPAMI.2016.2517636).
- [21] R. B. Tennakoon, A. Bab-Hadiashar, Z. Cao, R. Hoseinnezhad, and D. Suter. “Robust Model Fitting Using Higher Than Minimal Subset Sampling”. In: *IEEE Transactions on Pattern Analysis and Machine Intelligence* 38.2 (Feb. 2016), pp. 350–362. ISSN: 0162-8828. DOI: [10.1109/TPAMI.2015.2448103](https://doi.org/10.1109/TPAMI.2015.2448103).
- [22] Guobao Xiao, Hanzi Wang, Taotao Lai, and David Suter. “Hypergraph modelling for geometric model fitting”. In: *Pattern Recognition* 60 (2016), pp. 748–760. ISSN: 0031-3203. DOI: [10.1016/j.patcog.2016.06.026](https://doi.org/10.1016/j.patcog.2016.06.026).
- [23] T. T. Pham, T. J. Chin, K. Schindler, and D. Suter. “Interacting Geometric Priors For Robust Multimodel Fitting”. In: *IEEE Transactions on Image Processing* 23.10 (Oct. 2014), pp. 4601–4610. ISSN: 1057-7149. DOI: [10.1109/TIP.2014.2346025](https://doi.org/10.1109/TIP.2014.2346025).
- [24] T. T. Pham, T. J. Chin, J. Yu, and D. Suter. “The Random Cluster Model for Robust Geometric Fitting”. In: *IEEE Transactions on Pattern Analysis and Machine Intelligence* 36.8 (Aug. 2014), pp. 1658–1671. ISSN: 0162-8828. DOI: [10.1109/TPAMI.2013.2296310](https://doi.org/10.1109/TPAMI.2013.2296310).
- [25] Q.H. Tran, T.-J. Chin, W. Chojnacki, and D. Suter. “Sampling minimal subsets with large spans for robust estimation”. In: *International Journal of Computer Vision* 106.1 (2014), pp. 93–112. ISSN: 09205691. DOI: [10.1007/s11263-013-0643-y](https://doi.org/10.1007/s11263-013-0643-y).
- [26] Y. Yan, H. Wang, and D. Suter. “Multi-subregion based correlation filter bank for robust face recognition”. In: *Pattern Recognition* 47.11 (2014), pp. 3487–3501. ISSN: 00313203. DOI: [10.1016/j.patcog.2014.05.004](https://doi.org/10.1016/j.patcog.2014.05.004).
- [27] Jin Yu, Anders Eriksson, Tat-Jun Chin, and David Suter. “An Adversarial Optimization Approach to Efficient Outlier Removal”. In: *Journal of Mathematical Imaging and Vision* 48.3 (2014), pp. 451–466. ISSN: 1573-7683. DOI: [10.1007/s10851-013-0418-7](https://doi.org/10.1007/s10851-013-0418-7).
- [28] J. Zaragoza, T. J. Chin, Q. H. Tran, M. S. Brown, and D. Suter. “As-Projective-As-Possible Image Stitching with Moving DLT”. In: *IEEE Transactions on Pattern Analysis and Machine Intelligence* 36.7 (July 2014), pp. 1285–1298. ISSN: 0162-8828. DOI: [10.1109/TPAMI.2013.247](https://doi.org/10.1109/TPAMI.2013.247).
- [29] T. Sathyan, T. J. Chin, S. Arulampalam, and D. Suter. “A Multiple Hypothesis Tracker for Multitarget Tracking With Multiple Simultaneous Measurements”. In: *IEEE Journal of Selected Topics in Signal Processing* 7.3 (June 2013), pp. 448–460. ISSN: 1932-4553. DOI: [10.1109/JSTSP.2013.2258322](https://doi.org/10.1109/JSTSP.2013.2258322).
- [30] Q.-H. Tran, T.-J. Chin, W. Chojnacki, and D. Suter. “Sampling minimal subsets with large spans for robust parameter estimation”. In: *International Journal on Computer Vision* (2013).
- [31] H.S. Wong, T.-J. Chin, J. Yu, and D. Suter. “A simultaneous sample-and-filter strategy for robust multi-structure model fitting”. In: *Computer Vision and Image Understanding* 117.12 (2013), pp. 1755–1769. ISSN: 10773142. DOI: [10.1016/j.cviu.2013.08.007](https://doi.org/10.1016/j.cviu.2013.08.007).
- [32] Hoi Sim Wong, Tat-Jun Chin, Jin Yu, and David Suter. “Mode seeking over permutations for rapid geometric model fitting”. In: *Pattern Recognition* 46.1 (2013), pp. 257–271. ISSN: 0031-3203. DOI: [10.1016/j.patcog.2012.07.005](https://doi.org/10.1016/j.patcog.2012.07.005).
- [33] Tat-Jun. Chin, Jin Yu, and David Suter. “Accelerated Hypothesis Generation for Multi-Structure Data via Preference Analysis”. In: *IEEE Trans. Pattern Analysis and Machine Intelligence* 34.4 (Apr. 2012), pp. 625–638. ISSN: 0162-8828. DOI: [10.1109/TPAMI.2011.169](https://doi.org/10.1109/TPAMI.2011.169).

- [34] Reza Hoseinnezhad, Ba-Ngu Vo, Ba-Tuong Vo, and David Suter. “Visual tracking of numerous targets via multi-Bernoulli filtering of image data”. In: *Pattern Recognition* 45.10 (2012), pp. 3625–3635. ISSN: 0031-3203. DOI: [10.1016/j.patcog.2012.04.004](#).
- [35] 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”. In: *Signal Processing, IEEE Transactions on* 60.3 (Mar. 2012), pp. 1540–1541. ISSN: 1053-587X. DOI: [10.1109/TSP.2011.2173686](#).
- [36] Hanzi Wang, Tat-Jun Chin, and David Suter. “Simultaneously Fitting and Segmenting Multiple-Structure Data with Outliers”. In: *IEEE Transactions on Pattern Analysis and Machine Intelligence* 34.6 (June 2012), pp. 1177–1192. ISSN: 0162-8828. DOI: [10.1109/TPAMI.2011.216](#).
- [37] Tat-Jun Chin, Hanzi Wang, and David Suter. “Boosting Histograms of Descriptor Distances for Scalable Multiclass Specific Scene Recognition”. In: *Image and Vision Computing* 29.4 (Mar. 2011), pp. 241–250. ISSN: 0262-8856. DOI: [10.1016/j.imavis.2010.11.002](#).
- [38] Weiming Hu, Haiqiang Zuo, Ou Wu, Yunfei Chen, Zhongfei Zhang, and David Suter. “Recognition of adult images, videos, and web page bags”. In: *ACM Trans. Multimedia Comput. Commun. Appl.* 7S (1 Oct. 2011), 28:1–28:24. ISSN: 1551-6857. DOI: [10.1145/2037676.2037685](#).
- [39] R. Hoseinnezhad, A. Bab-Hadiashar, and D. Suter. “Finite Sample Bias of Robust Estimators in Segmentation of Closely Spaced Structures: A Comparative Study”. In: *Journal of Mathematical Imaging and Vision* 37.1 (2010), pp. 66–84. DOI: [10.1007/s10851-010-0193-7](#).
- [40] Ba-Ngu Vo, Ba-Tuong Vo, Nam-Trung Pham, and D. Suter. “Joint Detection and Estimation of Multiple Objects from Image Observations”. In: *IEEE Trans. Signal Processing* 58.10 (2010), pp. 5129–5141. DOI: [10.1109/TSP.2010.2050482](#).
- [41] P. Chen and D. Suter. “Error analysis in homography estimation by first order approximation tools: A general technique”. In: *Journal of Mathematical Imaging and Vision* 33.3 (Mar. 2009), pp. 281–295. DOI: [10.1007/s10851-008-0113-2](#).
- [42] P. Chen and D. Suter. “Rank constraints for homographies over two views: Revisiting the rank four constraint”. In: *International Journal of Computer Vision* 81.2 (Feb. 2009), pp. 205–225. DOI: [10.1007/s11263-008-0167-z](#).
- [43] P. Chen and D. Suter. “Simultaneously estimating the fundamental matrix and homographies”. In: *IEEE Trans. on Robotics* 25.6 (Dec. 2009), pp. 1425–1431. DOI: [10.1109/TR0.2009.2030224](#).
- [44] EeHui Lim and D. Suter. “3D Terrestrial LIDAR Classifications with Super-voxels and Multi-scale Conditional Random Field”. In: *CAD* 41.10 (2009), pp. 701–710. DOI: [10.1016/j.cad.2009.02.010](#).
- [45] Hang Zhou, Liang Wang, and D. Suter. “Human Action Recognition by Feature-Reduced Gaussian Process Classification”. In: *Pattern Recognition Letters* 30.12 (Sept. 2009), pp. 1059–1066. ISSN: 0167-8655. DOI: [10.1016/j.patrec.2009.03.013](#).
- [46] Tat-Jun Chin and David Suter. “Out-of-sample Extrapolation of Learned Manifolds”. In: *IEEE Trans. Pattern Analysis and Machine Intelligence* 30.9 (Sept. 2008), pp. 1547–1556. DOI: [10.1109/TPAMI.2007.70813](#).
- [47] K. Schindler and D. Suter. “Object detection by global contour shape”. In: *Pattern Recognition* 41.12 (2008), pp. 3736–3748. ISSN: 0031-3203. DOI: [10.1016/j.patcog.2008.05.025](#).
- [48] K. Schindler, D. Suter, and H. Wang. “A model-selection framework for multibody structure-and-motion of image sequences”. In: *Int. Journal of Computer Vision* 79.2 (Aug. 2008), pp. 159–177. DOI: [10.1007/s11263-007-0111-7](#).
- [49] L. Wang and D. Suter. “Visual Learning and Recognition of Sequential Data Manifolds with Applications to Human Movement Analysis”. In: *Computer Vision and Image Understanding* 110.2 (May 2008), pp. 153–172. ISSN: 1077-3142. DOI: [10.1016/j.cviu.2007.06.001](#).

- [50] P. Chen and D. Suter. “A bilinear approach to the parameter estimation of a general heteroscedastic linear system, with application to conic fitting”. In: *Journal of Mathematical Imaging and Vision* 28.3 (July 2007), pp. 191–208. DOI: [10.1007/s10851-007-0003-z](https://doi.org/10.1007/s10851-007-0003-z).
- [51] Tat-Jun Chin and David Suter. “Incremental Kernel Principal Component Analysis”. In: *IEEE Trans. Image Processing* 16.6 (June 2007), pp. 1662–1674. DOI: [10.1109/TIP.2007.896668](https://doi.org/10.1109/TIP.2007.896668).
- [52] H. Wang and D. Suter. “A Consensus Based Method for Tracking: Modelling Background Scenario and Foreground Appearance”. In: *Pattern Recognition* 40.3 (2007), pp. 1091–1105. ISSN: 0031-3203. DOI: [10.1016/j.patcog.2006.05.024](https://doi.org/10.1016/j.patcog.2006.05.024).
- [53] H. Wang, D. Suter, K. Schindler, and C. Shen. “Adaptive Object Tracking Based on an Effective Appearance Filter”. In: *IEEE Trans. Pattern Analysis and Machine Intelligence* 29.9 (Sept. 2007), pp. 1661–1667. DOI: [10.1109/TPAMI.2007.1112](https://doi.org/10.1109/TPAMI.2007.1112).
- [54] L. Wang and D. Suter. “Learning and Matching of Dynamic Shape Manifolds for Human Action Recognition”. In: *IEEE Trans. Image Processing* 16.6 (June 2007), pp. 1646–1661. DOI: [10.1109/TIP.2007.896661](https://doi.org/10.1109/TIP.2007.896661).
- [55] Kenji Yamamoto, Tomohiro Yendo, Toshiaki Fujii, Masayuki Tanimoto, and David Suter. “Colour Correction for Multiple-camera System by using Correspondences”. In: *The Journal of The Institute of Image Information and Television Engineers* 61.2 (2007), pp. 213–222. DOI: [10.3169/itej.61.213](https://doi.org/10.3169/itej.61.213).
- [56] P. Chen and D. Suter. “An Analysis of Linear Subspace Approaches for Computer Vision and Pattern Recognition”. In: *International Journal of Computer Vision* 68.1 (2006), pp. 83–106. DOI: [10.1007/s11263-006-6659-9](https://doi.org/10.1007/s11263-006-6659-9).
- [57] N. Gheissari, A. Bab-Hadiashar, and D. Suter. “Parametric Model-Based Motion Segmentation Using Surface Selection Criterion”. In: *Computer Vision and Image Understanding* 102.2 (2006), pp. 214–226. ISSN: 1077-3142. DOI: [10.1016/j.cviu.2006.02.002](https://doi.org/10.1016/j.cviu.2006.02.002).
- [58] K. Schindler and D. Suter. “Two-view Multibody Structure-and-Motion with Outliers through Model Selection”. In: *IEEE Trans. Pattern Analysis and Machine Intelligence* 28.6 (2006), pp. 983–995. DOI: [10.1109/TPAMI.2006.130](https://doi.org/10.1109/TPAMI.2006.130).
- [59] P. Chen and D. Suter. “SUBSPACE-BASED FACE RECOGNITION: OUTLIER DETECTION AND A NEW DISTANCE CRITERION”. In: *Int. Journal Pattern Recognition and Artificial Intelligence* 19.4 (2005), pp. 479–493. DOI: [10.1142/S0218001405004174](https://doi.org/10.1142/S0218001405004174).
- [60] P. Tissainayagam and D. Suter. “Object tracking in image sequences using point features”. In: *Pattern Recognition* 38.1 (2005), pp. 105–113. ISSN: 0031-3203. DOI: [10.1016/j.patcog.2004.05.011](https://doi.org/10.1016/j.patcog.2004.05.011).
- [61] P. Chen and D. Suter. “Recovering the Missing Components in a Large Noisy Low-Rank Matrix: Application to SFM”. In: *IEEE Trans. Pattern Analysis and Machine Intelligence* 26.8 (Aug. 2004), pp. 1051–1063. DOI: [10.1109/TPAMI.2004.52](https://doi.org/10.1109/TPAMI.2004.52).
- [62] P. Tissainayagam and D. Suter. “Assessing the Performance of Corner Detectors for Point Feature Tracking Applications”. In: *Image and Vision Computing* 22.8 (Aug. 2004), pp. 663–679. DOI: [10.1016/j.imavis.2004.02.001](https://doi.org/10.1016/j.imavis.2004.02.001).
- [63] H. Wang and D. Suter. “MDPE: A Very Robust Estimator for Model Fitting and Range Image Segmentation”. In: *Int. J. of Computer Vision* 59.2 (Sept. 2004), pp. 139–166. DOI: [10.1023/B:VISI.0000022287.61260.b0](https://doi.org/10.1023/B:VISI.0000022287.61260.b0).
- [64] H. Wang and D. Suter. “Robust Adaptive-Scale Parametric Model Estimation for Computer Vision”. In: *IEEE Trans. Pattern Analysis and Machine Intelligence* 26.11 (Nov. 2004), pp. 1459–1479. DOI: [10.1109/TPAMI.2004.109](https://doi.org/10.1109/TPAMI.2004.109).
- [65] P. Tissainayagam and D. Suter. “Contour Tracking with Automatic Motion Model Switching”. In: *Pattern Recognition* 36.10 (Oct. 2003), pp. 2411–2427. ISSN: 0031-3203. DOI: [10.1016/S0031-3203\(03\)00088-8](https://doi.org/10.1016/S0031-3203(03)00088-8).
- [66] H. Wang and D. Suter. “Using Symmetry in Robust Model Fitting”. In: *Pattern Recognition Letters* 24.16 (2003), pp. 2953–2966. ISSN: 0167-8655. DOI: [10.1016/S0167-8655\(03\)00156-9](https://doi.org/10.1016/S0167-8655(03)00156-9).



- [67] P. Tissainayagam and D. Suter. “Performance measures for assessing contour trackers”. In: *International Journal of Image and Graphics* 2.2 (Apr. 2002), pp. 343–359. DOI: [10.1142/S0219467802000627](https://doi.org/10.1142/S0219467802000627).
- [68] P. Tissainayagam and D. Suter. “Performance Prediction Analysis of Linear Point Feature Trackers Based on Different Motion Models”. In: *Computer Vision and Image Understanding* 84.1 (Oct. 2001), pp. 104–125. ISSN: 1077-3142. DOI: [10.1006/cviu.2001.0939](https://doi.org/10.1006/cviu.2001.0939).
- [69] P. Tissainayagam and D. Suter. “Visual Tracking with Automatic Motion Model Switching”. In: *Pattern Recognition* 34 (2001), pp. 641–660. ISSN: 0031-3203. DOI: [10.1016/S0031-3203\(00\)00019-4](https://doi.org/10.1016/S0031-3203(00)00019-4).
- [70] D. Suter and F. Chen. “Left Ventricular Motion Reconstruction Based on Elastic Vector Splines”. In: *IEEE Trans. Medical Imaging* 19.4 (Apr. 2000), pp. 295–305. DOI: [10.1109/42.848181](https://doi.org/10.1109/42.848181).
- [71] A. Bab-Hadiashar and D. Suter. “Robust Segmentation of Visual Data Using Ranked Unbiased Scale Estimate”. In: *ROBOTICA, International Journal of Information, Education and Research in Robotics and Artificial Intelligence* 17 (1999), pp. 649–660. DOI: [10.1017/S0263574799001812](https://doi.org/10.1017/S0263574799001812).
- [72] F. Chen and D. Suter. “DIV-CURL Vector Quasi-interpolation on a Finite Domain”. In: *Mathematical and Computer Modelling* 30.2 (1999), pp. 179–204. ISSN: 0895-7177. DOI: [10.1016/S0895-7177\(99\)00124-7](https://doi.org/10.1016/S0895-7177(99)00124-7).
- [73] A. Bab-Hadiashar and D. Suter. “Robust Optic Flow Computation”. In: *International Journal of Computer Vision* 29.1 (Aug. 1998), pp. 59–77. DOI: [10.1023/A:1008090730467](https://doi.org/10.1023/A:1008090730467).
- [74] F. Chen and D. Suter. “Fast evaluation of vector splines in three dimensions”. In: *Journal of Computing* 61.3 (1998), pp. 189–213. DOI: [10.1007/BF02684350](https://doi.org/10.1007/BF02684350).
- [75] F. Chen and D. Suter. “Using a Fast Multipole Method to Accelerate the Evaluation of Splines”. In: *IEEE Computational Science and Engineering* 5.3 (July 1998), pp. 24–31. DOI: [10.1109/99.714590](https://doi.org/10.1109/99.714590).
- [76] D. Suter. “Fast Evaluation of Splines Using Poisson Formula”. In: *International Journal of Scientific Computing and Modeling* 1.1 (1994), pp. 70–87.
- [77] D. Suter. “Mixed-Finite Element Based Motion Estimation”. In: *Innovation and Technology in Biology and Medicine* 15.3 (1994), pp. 292–307.
- [78] D. Suter. “Mixed Finite Element Based Neural Networks in Visual Reconstruction”. In: *Int. Journal. of Pattern Recognition and Artificial Intelligence* 6.1 (Apr. 1992), pp. 113–129. DOI: [10.1142/S0218001492000060](https://doi.org/10.1142/S0218001492000060).
- [79] D. Suter. “Constraint Networks in Vision”. In: *IEEE Transactions on Computers* 40.12 (Dec. 1991), pp. 1359–1367. DOI: [10.1109/12.106221](https://doi.org/10.1109/12.106221).
- [80] X. Deng, T. Dillon, K. Iew, J. Rankin, E. Smith, and D. Suter. “Optimal Topologies of Transputers for Different Classes of Problems”. In: *Comput. Syst. Sci. Eng.* 5.1 (Jan. 1990), pp. 36–41. ISSN: 0267-6192. URL: <http://dl.acm.org/citation.cfm?id=84789.84794>.

## Conference

- [1] Wei Qin Chuah, Ruwan Tennakoon, David Suter, Reza Hoseinnezhad, and Alireza Bab-hadiashar. “Single Domain Generalization via Normalised Cross-correlation Based Convolutions”. In: *2024 IEEE/CVF Winter Conference on Applications of Computer Vision (WACV)*. 2024. DOI: [10.1109/WACV57701.2024.001177](https://doi.org/10.1109/WACV57701.2024.001177).

- [2] Muraleekrishna Gopinathan, Martin Masek, Jumana Abu-Khalaf, and David Suter. “Spatially-Aware Speaker for Vision-and-Language Navigation Instruction Generation”. In: *Proceedings of the 62nd Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers)*. Ed. by Lun-Wei Ku, Andre Martins, and Vivek Srikumar. Bangkok, Thailand: Association for Computational Linguistics, Aug. 2024, pp. 13601–13614. DOI: [10.18653/v1/2024.acl-long.734](https://doi.org/10.18653/v1/2024.acl-long.734).
- [3] Muraleekrishna Gopinathan, Martin Masek, Jumana Abu-Khalaf, and David Suter. “StratXplore: Strategic Novelty-seeking and Instruction-aligned Exploration for Vision and Language Navigation”. In: *IROS2024*. accepted June 30 2024. 2024.
- [4] Zaid Ilyas, Afsah Saleem, David Suter, John T. Schousboe, William D. Leslie, Joshua R. Lewis, and Syed Zulqarnain Gilani. “A Hybrid CNN-Transformer Feature Pyramid Network for Granular Abdominal Aortic Calcification Detection from DXA Images”. In: *Medical Image Computing and Computer Assisted Intervention – MICCAI 2024*. Ed. by Marius George Linguraru, Qi Dou, Aasa Feragen, Stamatia Giannarou, Ben Glocker, Karim Lekadir, and Julia A. Schnabel. Cham: Springer Nature Switzerland, 2024, pp. 14–25. ISBN: 978-3-031-72120-5. DOI: [10.1007/978-3-031-72120-5\\_2](https://doi.org/10.1007/978-3-031-72120-5_2).
- [5] Ensiyeh Keshtkaran, Brodie von Berg, Grant Regan, and David Suter Syed Zulqarnain Gilani. “Estimating Blood Alcohol Level, Through Facial Features, for Driver Impairment Assessment”. In: *2024 IEEE/CVF Winter Conference on Applications of Computer Vision (WACV)*. 2024, pp. 4527–4536. DOI: [10.1109/WACV57701.2024.00448](https://doi.org/10.1109/WACV57701.2024.00448).
- [6] Mariia Khan, Yue Qiu, Yuren Cong, Bodo Rosenhahn, Jumana Abu-Khalaf, and David Suter. “Indoor Scene Change Understanding (SCU): Segment, Describe, and Revert Any Change”. In: *IROS2024*. accepted June 30 2024. 2024.
- [7] Mariia Khan, Yue Qiu, Yuren Cong, Bodo Rosenhahn, Jumana Abu-Khalaf, and David Suter. “Segment Any Object Model (SAOM): Real-to-Simulation Fine-Tuning Strategy for Multi-Class Multi-Instance Segmentation”. In: *ICIP2024*. accepted June 11 2024. 2024.
- [8] Mariia Khan, Jumana Abu-Khalaf, David Suter, and Bodo Rosenhahn. “M3T: Multi-class Multi-instance Multi-view Object Tracking for Embodied AI Tasks”. In: *Image and Vision Computing*. Ed. by Wei Qi Yan, Minh Nguyen, and Martin Stommel. Cham: Springer Nature Switzerland, 2023, pp. 246–261. ISBN: 978-3-031-25825-1. DOI: [10.1007/978-3-031-25825-1\\_18](https://doi.org/10.1007/978-3-031-25825-1_18).
- [9] Afsah Saleem, Zaid Ilyas, David Suter, Ghulam Mubashar Hassan, Siobhan Reid, John T. Schousboe, Richard Prince, William D. Leslie, Joshua R. Lewis, and Syed Zulqarnain Gilani. “SCOL: Supervised Contrastive Ordinal Loss for Abdominal Aortic Calcification Scoring on Vertebral Fracture Assessment Scans”. In: *Medical Image Computing and Computer Assisted Intervention – MICCAI 2023*. Ed. by Hayit Greenspan, Anant Madabhushi, Parvin Mousavi, Septimiu Salcudean, James Duncan, Tanveer Syeda-Mahmood, and Russell Taylor. Cham: Springer Nature Switzerland, 2023, pp. 273–283. ISBN: 978-3-031-43987-2. DOI: [10.1007/978-3-031-43987-2\\_27](https://doi.org/10.1007/978-3-031-43987-2_27).
- [10] WeiQin Chuah, Ruwan Tennakoon, Hosseinneshad, Alireza Bab-Hadiashar, and David Suter. “ITSA: An Information Theoretic Approach to Automatic Shortcut Avoidance and Domain Generalization in Stereo Matching Networks”. In: *2022 IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*. 2022, pp. 13012–13022. DOI: [10.1109/CVPR52688.2022.01268](https://doi.org/10.1109/CVPR52688.2022.01268).
- [11] Dzung Doan, Michele Sasdelli, Tat-Jun Chin, and David Suter. “A Hybrid Quantum-Classical Algorithm for Robust Fitting”. In: *2022 IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*. 2022, pp. 417–427. DOI: [10.1109/CVPR52688.2022.00051](https://doi.org/10.1109/CVPR52688.2022.00051).
- [12] Syed Zulqarnain Gilani, Naeha Sharif, David Suter, John T. Schousboe, Siobhan Reid, William D. Leslie, and Joshua R. Lewis. “Show, Attend and Detect: Towards Fine-Grained Assessment of Abdominal Aortic Calcification on Vertebral Fracture Assessment Scans”. In: *Medical Image Computing and Computer Assisted Intervention – MICCAI 2022*. Ed. by Linwei Wang, Qi Dou, P. Thomas Fletcher, Stefanie Speidel, and Shuo Li. Cham: Springer Nature Switzerland, 2022, pp. 439–450. ISBN: 978-3-031-16437-8. DOI: [10.1007/978-3-031-16437-8\\_42](https://doi.org/10.1007/978-3-031-16437-8_42).

- [13] Erchaun Zhang, David Suter, Ruwan Tennakoon, Tat-Jun Chin, Alireza Bab-Hadiashar, Giang Truong, and Syed Zulqarnain Gilani. “Maximum Consensus by Weighted Influences of Monotone Boolean Functions”. In: *2022 IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*. 2022, pp. 8954–8962. DOI: [10.1109/CVPR52688.2022.00876](https://doi.org/10.1109/CVPR52688.2022.00876).
- [14] Erchuan Zhang, David Suter, Giang Truong, and Syed Zulqarnain Gilani. “Sparse Hypergraph Community Detection Thresholds in Stochastic Block Model”. In: *Advances in Neural Information Processing Systems*. Ed. by S. Koyejo, S. Mohamed, A. Agarwal, D. Belgrave, K. Cho, and A. Oh. Vol. 35. Curran Associates, Inc., 2022, pp. 34012–34023. URL: [https://proceedings.neurips.cc/paper\\_files/paper/2022/file/dbdea7859f1d2fc10f2c9e79b8f5ae54-Paper-Conference.pdf](https://proceedings.neurips.cc/paper_files/paper/2022/file/dbdea7859f1d2fc10f2c9e79b8f5ae54-Paper-Conference.pdf).
- [15] Tat-Jun Chin, David Suter, Shin-Fang Ch’ng, and James Quach. “Quantum Robust Fitting”. In: *Computer Vision – ACCV 2020*. Ed. by Hiroshi Ishikawa, Cheng-Lin Liu, Tomas Pajdla, and Jianbo Shi. Cham: Springer International Publishing, 2021, pp. 485–499. ISBN: 978-3-030-69525-5. DOI: [10.1007/978-3-030-69525-5\\_29](https://doi.org/10.1007/978-3-030-69525-5_29).
- [16] Zaid Ilyas, Naeha Sharif, John T. Schousboe, Joshua R. Lewis, David Suter, and Syed Zulqarnain Gilani. “GuideNet: Learning Inter- Vertebral Guides in DXA Lateral Spine Images”. In: *2021 Digital Image Computing: Techniques and Applications (DICTA)*. 2021, pp. 01–07. DOI: [10.1109/DICTA52665.2021.9647067](https://doi.org/10.1109/DICTA52665.2021.9647067).
- [17] Ruwan Tennakoon, David Suter, Erchuan Zhang, Tat-Jun Chin, and Alireza Bab-Hadiashar. “Consensus Maximisation Using Influences of Monotone Boolean Functions”. In: *2021 IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*. Oral Presentation (17% of accepted papers, roughly 3% of submitted papers). 2021, pp. 2865–2874. DOI: [10.1109/CVPR46437.2021.00289](https://doi.org/10.1109/CVPR46437.2021.00289).
- [18] Giang Truong, Huu Le, David Suter, Erchuan Zhang, and Syed Zulqarnain Gilani. “Unsupervised Learning for Robust Fitting: A Reinforcement Learning Approach”. In: *2021 IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*. 2021, pp. 10343–10352. DOI: [10.1109/CVPR46437.2021.01021](https://doi.org/10.1109/CVPR46437.2021.01021).
- [19] Haosheng Chen, David Suter, Qiangqiang Wu, and Hanzi Wang. “End-to-end Learning of Object Motion Estimation from Retinal Events for Event-based Object Tracking”. In: *The AAAI Conference on Artificial Intelligence (AAAI), New York USA*. Vol. 37. 2020, pp. 10534–10541. DOI: [10.1609/aaai.v34i07.6625](https://doi.org/10.1609/aaai.v34i07.6625). 20% acceptance rate.
- [20] N. Fayyazifar, S. Ahderom, D. Suter, A. Maiorana, and G. Dwivedi. “Impact of Neural Architecture Design on Cardiac Abnormality Classification Using 12-lead ECG Signals”. In: *2020 Computing in Cardiology*. 2020, pp. 1–4. DOI: [10.22489/CinC.2020.161](https://doi.org/10.22489/CinC.2020.161).
- [21] Chau Nguyen Duc Minh, Syed Zulqarnain Gilani, Syed Islam, and David Suter. “Learning Affordance Segmentation: An Investigative Study”. In: *DICTA2020*. 2020. DOI: [10.1109/DICTA51227.2020.9363390](https://doi.org/10.1109/DICTA51227.2020.9363390).
- [22] G. Truong, S. Z. Gilani, S. M. S. Islam, and D. Suter. “Fast Point Cloud Registration using Semantic Segmentation”. In: *2019 Digital Image Computing: Techniques and Applications (DICTA)*. DST Best Science Paper Award. Dec. 2019, pp. 1–8. DOI: [10.1109/DICTA47822.2019.8945870](https://doi.org/10.1109/DICTA47822.2019.8945870).
- [23] Zhipeng Cai, Tat-Jun Chin, Huu Le, and David Suter. “Deterministic Consensus Maximization with Biconvex Programming”. In: *Computer Vision – ECCV 2018*. Ed. by Vittorio Ferrari, Martial Hebert, Cristian Sminchisescu, and Yair Weiss. Cham: Springer International Publishing, 2018, pp. 699–714. ISBN: 978-3-030-01258-8. DOI: [10.1007/978-3-030-01258-8\\_42](https://doi.org/10.1007/978-3-030-01258-8_42).
- [24] Huu Le, Anders Eriksson, Michael Milford, Thanh-Toan Do, Tat-Jun Chin, and David Suter. “Non-smooth M-estimator for Maximum Consensus Estimation”. In: *29th British Machine Vision Conference (BMVC)*. 2018. Oral Presentation - Best Science Paper Award.
- [25] Shuyuan Lin, Guobao Xiao, Yan Yan, David Suter, and Hanzi Wang. “Hypergraph Optimization for Multi-structural Geometric Model Fitting”. In: *The AAAI Conference on Artificial Intelligence (AAAI), Hawaii, USA*. Vol. 33. 01. 2018, pp. 8730–8737. DOI: [10.1609/aaai.v33i01.33018730](https://doi.org/10.1609/aaai.v33i01.33018730). 16% acceptance rate.



- [26] H. M. Le, T.-J. Chin, and D. Suter. “An oexact penalty method for locally convergent maximum consensus”. In: *Proceedings CVPR2017*. IEEE, 2017, pp. 379–387. DOI: [10.1109/CVPR.2017.48](https://doi.org/10.1109/CVPR.2017.48).
- [27] H. M. Le, T.-J. Chin, and D. Suter. “RATSAC - Random Tree Sampling for Maximum Consensus Estimation”. In: *Proceedings DICTA2017*. DST Award. IEEE, 2017. DOI: [10.1109/DICTA.2017.8227480](https://doi.org/10.1109/DICTA.2017.8227480).
- [28] J. Williams, G. Carneiro, and D. Suter. “Region of Interest Autoencoders with an Application to Pedestrian Detection”. In: *Proceedings DICTA2017*. IEEE, 2017. DOI: [10.1109/DICTA.2017.8227485](https://doi.org/10.1109/DICTA.2017.8227485).
- [29] Qianggong Zhang, T.-J. Chin, and D. Suter. “Quasiconvex Plane Sweep for Triangulation with Outliers”. In: *Proceedings ICCV2017*. IEEE, 2017, pp. 920–928. DOI: [10.1109/ICCV.2017.105](https://doi.org/10.1109/ICCV.2017.105).
- [30] H. Le, T. J. Chin, and D. Suter. “Conformal Surface Alignment with Optimal Moe bius Search”. In: *2016 IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*. June 2016, pp. 2507–2516. DOI: [10.1109/CVPR.2016.275](https://doi.org/10.1109/CVPR.2016.275).
- [31] Guobao Xiao, Hanzi Wang, Yan Yan, and David Suter. “Superpixel-Based Two-View Deterministic Fitting for Multiple-Structure Data”. In: *Computer Vision – ECCV 2016*. Ed. by Bastian Leibe, Jiri Matas, Nicu Sebe, and Max Welling. Cham: Springer International Publishing, 2016, pp. 517–533. ISBN: 978-3-319-46466-4. DOI: [10.1007/978-3-319-46466-4\\_31](https://doi.org/10.1007/978-3-319-46466-4_31).
- [32] T. J. Chin, P. Purkait, A. Eriksson, and D. Suter. “Efficient globally optimal consensus maximisation with tree search”. In: *2015 IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*. CVPR Best Paper Honourable Mention Award. June 2015, pp. 2413–2421. DOI: [10.1109/CVPR.2015.7298855](https://doi.org/10.1109/CVPR.2015.7298855).
- [33] M. Hadian-Jazi, A. Bab-Hadiashar, R. Hoseinnezhad, and D. Suter. “Theoretical analysis of hough transform optimal cell size: Segmentation of nearby lines”. In: *2015 International Conference on Image Processing Theory, Tools and Applications (IPTA)*. Nov. 2015, pp. 163–168. DOI: [10.1109/IPTA.2015.7367119](https://doi.org/10.1109/IPTA.2015.7367119).
- [34] H. Wang, G. Xiao, Y. Yan, and D. Suter. “Mode-Seeking on Hypergraphs for Robust Geometric Model Fitting”. In: *2015 IEEE International Conference on Computer Vision (ICCV)*. Dec. 2015, pp. 2902–2910. DOI: [10.1109/ICCV.2015.332](https://doi.org/10.1109/ICCV.2015.332).
- [35] A. J. P. Bustos, T. J. Chin, and D. Suter. “Fast Rotation Search with Stereographic Projections for 3D Registration”. In: *2014 IEEE Conference on Computer Vision and Pattern Recognition*. June 2014, pp. 3930–3937. DOI: [10.1109/CVPR.2014.502](https://doi.org/10.1109/CVPR.2014.502).
- [36] Tat-Jun Chin, Álvaro Parra Bustos, Michael S. Brown, and David Suter. “Fast Rotation Search for Real-time Interactive Point Cloud Registration”. In: *Proceedings of the 18th Meeting of the ACM SIGGRAPH Symposium on Interactive 3D Graphics and Games*. I3D ’14. San Francisco, California: ACM, 2014, pp. 55–62. ISBN: 978-1-4503-2717-6. DOI: [10.1145/2556700.2556712](https://doi.org/10.1145/2556700.2556712).
- [37] G. Lin, C. Shen, Q. Shi, A. van den Hengel, and D. Suter. “Fast Supervised Hashing with Decision Trees for High-Dimensional Data”. In: *2014 IEEE Conference on Computer Vision and Pattern Recognition*. June 2014, pp. 1971–1978. DOI: [10.1109/CVPR.2014.253](https://doi.org/10.1109/CVPR.2014.253).
- [38] Pulak Purkait, Tat-Jun Chin, Hanno Ackermann, and David Suter. “Clustering with Hypergraphs: The Case for Large Hyperedges”. In: *Computer Vision – ECCV 2014: 13th European Conference, Zurich, Switzerland, September 6-12, 2014, Proceedings, Part IV*. Ed. by David Fleet, Tomas Pajdla, Bernt Schiele, and Tinne Tuytelaars. Cham: Springer International Publishing, 2014, pp. 672–687. ISBN: 978-3-319-10593-2. DOI: [10.1007/978-3-319-10593-2\\_44](https://doi.org/10.1007/978-3-319-10593-2_44).
- [39] G. Lin, C. Shen, D. Suter, and A. v. d. Hengel. “A General Two-Step Approach to Learning-Based Hashing”. In: *2013 IEEE International Conference on Computer Vision*. Dec. 2013, pp. 2552–2559. DOI: [10.1109/ICCV.2013.317](https://doi.org/10.1109/ICCV.2013.317).

- [40] Guosheng Lin, Chunhua Shen, Anton van den Hengel, and David Suter. “Fast Training of Effective Multi-class Boosting Using Coordinate Descent Optimization”. In: *Computer Vision – ACCV 2012: 11th Asian Conference on Computer Vision, Daejeon, Korea, November 5-9, 2012, Revised Selected Papers, Part II*. Ed. by Kyoung Mu Lee, Yasuyuki Matsushita, James M. Rehg, and Zhanyi Hu. Berlin, Heidelberg: Springer Berlin Heidelberg, 2013, pp. 782–795. ISBN: 978-3-642-37444-9. DOI: [10.1007/978-3-642-37444-9\\_61](https://doi.org/10.1007/978-3-642-37444-9_61).
- [41] W. X. Liu, T. J. Chin, G. Carneiro, and D. Suter. “Point Correspondence Validation under Unknown Radial Distortion”. In: *2013 International Conference on Digital Image Computing: Techniques and Applications (DICTA)*. Nov. 2013, pp. 1–8. DOI: [10.1109/DICTA.2013.6691513](https://doi.org/10.1109/DICTA.2013.6691513).
- [42] T. Sathyan, T. J. Chin, D. Suter, and M. Hedley. “Improved wireless tracking using radio frequency and video sensors”. In: *Proceedings of the 16th International Conference on Information Fusion*. July 2013, pp. 1442–1449.
- [43] R. B. Tennakoon, A. Bab-Hadiashar, D. Suter, and Z. Cao. “Robust Data Modelling Using Thin Plate Splines”. In: *2013 International Conference on Digital Image Computing: Techniques and Applications (DICTA)*. Nov. 2013, pp. 1–8. DOI: [10.1109/DICTA.2013.6691522](https://doi.org/10.1109/DICTA.2013.6691522).
- [44] J. Zaragoza, T. J. Chin, M. S. Brown, and D. Suter. “As-Projective-As-Possible Image Stitching with Moving DLT”. In: *2013 IEEE Conference on Computer Vision and Pattern Recognition*. June 2013, pp. 2339–2346. DOI: [10.1109/CVPR.2013.303](https://doi.org/10.1109/CVPR.2013.303).
- [45] 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.
- [46] Trung T. Pham, Tat-Jun Chin, Jin Yu, and D. Suter. “The Random Cluster Model for Robust Geometric Fitting”. In: *CVPR2012*. July 2012, pp. 710–717. DOI: [10.1109/CVPR.2012.6247740](https://doi.org/10.1109/CVPR.2012.6247740).
- [47] Quoc-Huy Tran, Tat-Jun Chin, Gustavo Carneiro, Michael S. Brown, and David Suter. “In Defence of RANSAC for Outlier Rejection in Deformable Registration”. In: *ECCV*. Vol. 4. 2012, pp. 274–287. DOI: [10.1007/978-3-642-33765-9\\_textunderscore20](https://doi.org/10.1007/978-3-642-33765-9_textunderscore20).
- [48] X. Zhou, X. Li, T.-J. Chin, and D. Suter. “Supapixel-driven level set tracking”. In: *Proceedings ICIP 2012*. 2012, pp. 409–412. ISBN: 9781467325332. DOI: [10.1109/ICIP.2012.6466882](https://doi.org/10.1109/ICIP.2012.6466882).
- [49] Xue Zhou, Xi Li, Tat-Jun Chin, and D. Suter. “ADAPTIVE HUMAN SILHOUETTE RECONSTRUCTION BASED ON THE EXPLORATION OF TEMPORAL INFORMATION”. In: *ICASSP2012*. Mar. 2012, pp. 1005–1008. DOI: [10.1109/ICASSP.2012.6288055](https://doi.org/10.1109/ICASSP.2012.6288055).
- [50] 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*. Editors J. Shawe-Taylor and R.S. Zemel and P. Bartlett and F.C.N. Pereira and K.Q. Weinberger. 2011, pp. 540–548. URL: [http://books.nips.cc/papers/files/nips24/NIPS2011\\_0383.pdf](http://books.nips.cc/papers/files/nips24/NIPS2011_0383.pdf).
- [51] 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*. 2011, pp. 2300–2303.
- [52] Hoi Sim Wong, Tat-Jun Chin, Jin Yu, and D. Suter. “Dynamic and Hierarchical Multi-Structure Geometric Model Fitting”. In: *ICCV2011*. 2011, pp. 1044–1051. DOI: [10.1109/ICCV.2011.6126350](https://doi.org/10.1109/ICCV.2011.6126350).
- [53] Jin Yu, Tat-Jun Chin, and D. Suter. “A Global Optimization Approach to Robust Multi-Model Fitting”. In: *CVPR2011*. 2011, pp. 2041–2048. DOI: [10.1109/CVPR.2011.5995608](https://doi.org/10.1109/CVPR.2011.5995608).
- [54] Jin Yu, Anders Eriksson, Tat-Jun Chin, and D. Suter. “An Adversarial Optimization Approach to Efficient Outlier Removal”. In: *ICCV2011*. 2011, pp. 309–406. DOI: [10.1109/ICCV.2011.6126268](https://doi.org/10.1109/ICCV.2011.6126268).

- [55] N. A. Zaidi, D. Squire, and D. Suter. “A Gradient-Based Metric Learning Algorithm for k-NN Classifiers”. In: *AI2010: ADVANCES IN Artificial Intelligence*. Vol. 6464/2011. 2011, pp. 194–203. DOI: [10.1007/978-3-642-17432-2\\_20](#).
- [56] Tat-Jun Chin, Hanzi Wang, and D. Suter. “Multi-Structure Model Selection via Kernel Optimisation”. In: *CVPR2010*. 2010, pp. 3586–3593. DOI: [10.1109/CVPR.2010.5539931](#).
- [57] Tat-Jun Chin, Jin Yu, and D. Suter. “Accelerated Hypothesis Generation for Multi-structure Robust Fitting”. In: *Computer Vision - ECCV2010*. Ed. by Kostas Daniilidis, Petros Maragos, and Nikos Paragios. Vol. 6315. Lecture Notes in Computer Science. Springer Berlin / Heidelberg, 2010, pp. 533–546. ISBN: 978-3-642-15554-3. DOI: [10.1007/978-3-642-15555-0\\_39](#).
- [58] 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*. Vol. 4. Oct. 2010, pp. 1586–1589. DOI: [10.1109/CISP.2010.5646952](#).
- [59] Hanzi Wang, Tat-Jun Chin, and D. Suter. “Visual Localization and Segmentation Based on Foreground/Background Modeling”. In: *ICASSAP 2010*. 2010, pp. 1158–1161. DOI: [10.1109/ICASSP.2010.5495372](#).
- [60] Hoi Sim Wong, Tat-Jun Chin, Jin Yu, and D. Suter. “Efficient Multi-Structure Robust Fitting with Incremental Top-k Lists Comparison”. In: *ACCV2010*. Vol. 6495/2011. 2010, pp. 553–564. DOI: [10.1007/978-3-642-19282-1\\_44](#).
- [61] 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*. Vol. 6118/2010. 2010, pp. 142–149. DOI: [10.1007/978-3-642-13657-3\\_17](#).
- [62] Tat-Jun Chin and D. Suter. “Keypoint Induced Distance Profiles for Visual Recognition”. In: *CVPR2009*. 2009, pp. 1239–1246. DOI: [10.1109/CVPR.2009.5206734](#).
- [63] Tat-Jun Chin, Hanzi Wang, and D. Suter. “Robust Fitting of Multiple Structures: The Statistical Learning Approach”. In: *ICCV2009*. 2009, pp. 413–420. DOI: [10.1109/ICCV.2009.5459150](#).
- [64] Tat-Jun Chin, Hanzi Wang, and D. Suter. “The Ordered Residual Kernel for Robust Motion Subspace Clustering”. In: *NIPS2009*. 2009. URL: [http://books.nips.cc/papers/files/nips22/NIPS2009\\_0504.pdf](http://books.nips.cc/papers/files/nips22/NIPS2009_0504.pdf).
- [65] R. Hoseinezhad, B-N Vo, and D. Suter. “Fast segmentation of multiple motions”. In: *Cognitive Systems with Interactive Sensors*. 2009.
- [66] R. Hoseinezhad, B-N Vo, and D. Suter. “Fast single-view people tracking”. In: *Cognitive Systems with Interactive Sensors*. 2009.
- [67] 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*. 2009, pp. 890–898.
- [68] 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. DOI: [10.1109/CVPRW.2008.4563064](#).
- [69] 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.
- [70] R. Jarvis S. Effendi and D. Suter. “Fast Stereo with background Removal Using Phase Correlation”. In: *IVCNZ2008*. 2008. DOI: [10.1109/IVCNZ.2008.4762137](#).
- [71] A. Shaji, S. Chandran, and D. Suter. “Manifold Optimisation for Motion Factorisation”. In: *ICPR2008*. 2008. DOI: [10.1109/ICPR.2008.4761367](#).
- [72] N. A. Zaidi and D. Suter. “Confidence Rated Boosting Algorithm for Generic Object Detection”. In: *ICPR2008*. 2008. DOI: [10.1109/ICPR.2008.4761184](#).

- [73] N. A. Zaidi and D. Suter. “Object Detection using a Cascade of Classifiers”. In: *DICTA2008*. 2008, pp. 600–605. DOI: <http://doi.ieeecomputersociety.org/10.1109/DICTA.2008.55>.
- [74] H. Zhou and D. Suter. “Improved Building Detection by Gaussian Processes Classification via Feature Space Rescale and Spectral Kernel Selection”. In: *CVPR2008*. 2008. DOI: [10.1109/CVPR.2008.4587463](https://doi.org/10.1109/CVPR.2008.4587463).
- [75] H. Zhou and D. Suter. “Improving Gaussian Processes Classification by Spectral Data Reorganizing”. In: *ICPR2008*. 2008. DOI: [10.1109/ICPR.2008.4761790](https://doi.org/10.1109/ICPR.2008.4761790).
- [76] H. Zhou, L. Wang, and D. Suter. “Human Motion Recognition using Gaussian Processes Classification”. In: *ICPR2008*. 2008. DOI: [10.1109/ICPR.2008.4761140](https://doi.org/10.1109/ICPR.2008.4761140).
- [77] 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*. 2007, pp. 290–295.
- [78] 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*. 2007, pp. 368–373.
- [79] Tat-Jun Chin, Liang Wang, Konrad Schindler, and D. Suter. “Extrapolating Learned Manifolds for Human Activity Recognition”. In: *ICIP 2007*. Vol. 1. 2007, pp. 381–384. DOI: [10.1109/ICIP.2007.4378971](https://doi.org/10.1109/ICIP.2007.4378971).
- [80] EeHui Lim and D. Suter. “Conditional Random Field for 3D point clouds with Adaptive Data Reduction”. In: *NSAGEM 2007*. 2007, pp. 404–408. DOI: [/10.1109/CW.2007.30](https://doi.org/10.1109/CW.2007.30).
- [81] A. Shaji, S. Chandran, B. Siddiquie, and D. Suter. “Human Pose Extraction from Monocular Videos using Constrained Non-Rigid Factorization”. In: *BMVC 2007*. 2007.
- [82] L. Wang and D. Suter. “Recognizing Human Activities from Silhouettes: Motion Subspace and Factorial Discriminative Graphical Model”. In: *CVPR2007*. 2007. DOI: [10.1109/CVPR.2007.383298](https://doi.org/10.1109/CVPR.2007.383298).
- [83] H. Zhou and D. Suter. “Fast Sparse Gaussian Processes Learning for Man-Made Structure Classification”. In: *Online Learning for Classification Workshop 2007*. 2007. DOI: [10.1109/CVPR.2007.383441](https://doi.org/10.1109/CVPR.2007.383441).
- [84] H. Zhou and D. Suter. “Man-Made Structure Segmentation using Gaussian Processes and Wavelet Features”. In: *ICIP 2007*. Vol. 4. 2007, pp. 349–352. DOI: [10.1109/ICIP.2007.4380026](https://doi.org/10.1109/ICIP.2007.4380026).
- [85] 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*. 2006, pp. 461–466. DOI: [10.1109/FGR.2006.67](https://doi.org/10.1109/FGR.2006.67).
- [86] 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. DOI: [10.1109/AVSS.2006.66](https://doi.org/10.1109/AVSS.2006.66).
- [87] Tat-Jun Chin and David Suter. “A New Distance Criterion for Face Recognition Using Image Sets”. In: *Computer Vision – ACCV 2006*. Ed. by P.J. Narayanan, Shree K. Nayar, and Heung-Yeung Shum. Vol. 3851. LNCS. Springer, 2006, pp. 549–558. ISBN: 3-540-31219-6. DOI: [10.1007/11612032\\_56](https://doi.org/10.1007/11612032_56).
- [88] Tat-Jun Chin and David Suter. “Incremental Kernel PCA for Efficient Non-linear Feature Extraction”. In: *British Machine Vision Conference BMVC2006*. 2006, pp. 939–948.
- [89] Mohamed Gobara and David Suter. “Feature Detection with an Improved Anisotropic Filter”. In: *Computer Vision – ACCV 2006*. Ed. by P.J. Narayanan, Shree K. Nayar, and Heung-Yeung Shum. Vol. 3852. LNCS. Springer, 2006, pp. 643–652. ISBN: 3-540-31244-7. DOI: [10.1007/11612704\\_64](https://doi.org/10.1007/11612704_64).

- [90] 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)*. Vol. 4291. Heidelberg: Springer-Verlag, 2006, pp. 445–454. DOI: [10.1007/11919476\\_45](#).
- [91] E-H. Lim and D. Suter. "Classification of 3D LIDAR Point Clouds for Urban Modelling". In: *Image and Vision Computing, New Zealand, Nov. 2006*. 2006, pp. 149–154.
- [92] E-H. Lim and D. Suter. "Occlusion Removal in Image for 3D Urban Modelling". In: *Image and Vision Computing, New Zealand, Nov. 2006*. 2006, pp. 191–196.
- [93] 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*. 2006, pp. 137–146.
- [94] T. Tangkuampien and D. Suter. "Human Motion De-noising via Greedy Kernel Principal Component Analysis Filtering". In: *Proc. ICPR 2006*. Vol. 3. 2006, pp. 457–460. DOI: [10.1109/ICPR.2006.639](#).
- [95] T. Tangkuampien and D. Suter. "Real-Time Human Pose Inference using Kernel Principal Component Pre-image Approximations". In: *British Machine Vision Conference BMVC2006*. 2006, pp. 599–608.
- [96] H. Wang and D. Suter. "Background Subtraction Based on a Robust Consensus Method". In: *Proc. ICPR 2006*. Vol. 1. 2006, pp. 223–226. DOI: [10.1109/ICPR.2006.312](#).
- [97] H. Wang and D. Suter. "Efficient Visual Tracking by Probabilistic Fusion of Multiple Cues". In: *Proc. ICPR 2006*. Vol. 4. 2006, pp. 892–895. DOI: [10.1109/99.714590](#).
- [98] 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*. Vol. 3953. LNCS. Springer, 2006, pp. 606–618. DOI: [10.1007/11744078\\_47](#).
- [99] Hanzi Wang and David Suter. "A Novel Robust Statistical Method for Background Initialization and Visual Surveillance". In: *Computer Vision – ACCV 2006*. Ed. by P.J. Narayanan, Shree K. Nayar, and Heung-Yeung Shum. Vol. 3851. LNCS. Springer, 2006, pp. 328–337. ISBN: 3-540-31219-6. DOI: [10.1007/11612032\\_34](#).
- [100] L. Wang and D. Suter. "Analyzing Human Movements from Silhouettes using Manifold Learning". In: *Int. Conf. on Advanced Video and Signal-based Surveillance*. 2006. DOI: [10.1109/AVSS.2006.25](#).
- [101] L. Wang and D. Suter. "Informative Shape Representations for Human Action Recognition". In: *Proc. ICPR 2006*. Vol. 2. 2006, pp. 1266–1269. DOI: [10.1109/ICPR.2006.711](#).
- [102] 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. DOI: [10.1109/AVSS.2006.4](#).
- [103] 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*. 2006, pp. 61–66.
- [104] J. Cheong, D. Suter, and F. Cicuttini. "A Semi-automatic System for Measuring Tibial Cartilage Volume". In: *Proc. IEEE Tencon'05, Melbourne, Australia*. 2005. DOI: [10.1109/TENCON.2005.301261](#).
- [105] 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*. 2005, pp. 307–314. DOI: [10.1109/DICTA.2005.26](#).
- [106] Tat-Jun Chin, James U, Konrad Schindler, and David Suter. "Face Recognition from Video by Matching Image Sets". In: *Proc. Digital Image Computing: Techniques and Applications, Cairns, Australia*. 2005, pp. 188–194. DOI: [10.1109/DICTA.2005.36](#).
- [107] K. Schindler and D. Suter. "Two-view Multibody Structure-and-Motion with Outliers". In: *Proc. IEEE Conference in Computer Vision and Pattern Recognition, CVPR2005*. Vol. 2. IEEE, 2005, pp. 676–683. DOI: [10.1109/CVPR.2005.355](#).



- [108] H. Wang and D. Suter. “A RE-EVALUATION OF MIXTURE-OF-GAUSSIAN BACKGROUND MODELING”. In: *Proc. ICASSP 2005*. 2005, pp. 1017–1020. DOI: [10.1109/ICASSP.2005.1415580](https://doi.org/10.1109/ICASSP.2005.1415580).
- [109] 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)*. 2005, pp. 153–159. DOI: [10.1109/VSPETS.2005.1570910](https://doi.org/10.1109/VSPETS.2005.1570910).
- [110] H. Wang and D. Suter. “Tracking and Segmenting People with Occlusions by a Sample Consensus Based Method”. In: *Proc. ICIP 2005*. Vol. 2. 2005, pp. 410–413. DOI: [10.1109/ICIP.2005.1530079](https://doi.org/10.1109/ICIP.2005.1530079).
- [111] P. Chen and D. Suter. “SHIFT-INVARIANT WAVELET DENOISING USING INTERSCALE DEPENDENCY”. In: *ICIP-2004, Singapore*. Vol. 2. 2004, pp. 1005–1008. DOI: [10.1109/ICIP.2004.1419471](https://doi.org/10.1109/ICIP.2004.1419471).
- [112] P. Chen and D. Suter. “Subspace-based face recognition: outlier detection and a new distance criterion”. In: *Proceedings ACCV2004*. 2004, pp. 830–835.
- [113] H. Wang and D. Suter. “Robust Fitting by Adaptive-Scale Residual Consensus”. In: *Lecture Notes in Computer Science, Proceedings ECCV2004*. Ed. by T. Pajdla and J. Matas. Vol. 3023. Heidelberg: Springer-Verlag, 2004, pp. 107–118. DOI: [10.1007/978-3-540-24672-5\\_9](https://doi.org/10.1007/978-3-540-24672-5_9).
- [114] 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*. 2003, pp. 64–69.
- [115] 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.
- [116] 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*. Oct. 2003.
- [117] 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*. 2003, pp. 89–98.
- [118] 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*. 2003, pp. 581–590.
- [119] 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*. 2003, pp. 178–183. DOI: [10.1109/ICCV.2003.1238337](https://doi.org/10.1109/ICCV.2003.1238337).
- [120] A. Bab-Hadiashar, N. Gheissari, and D. Suter. “Robust Model Based Motion Segmentation”. In: *Proceedings of ICPR2002*. Ed. by R. Kasturi, D. Laurendeau, and G. Suen. Vol. 2. 2002, pp. 753–757.
- [121] 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*. 2002, pp. 358–363.
- [122] S. Boukir and D. Suter. “Application of rigid motion geometry to film restoration”. In: *Proceedings of ICPR2002*. Vol. 6. 2002, pp. 360–364.
- [123] 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*. 2002, pp. 207–212.

- [124] 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)*. Vol. 3. 2002, pp. 2872–2877. DOI: [10.1109/CDC.2002.1184284](#).
- [125] P. Tissainayagam and D. Suter. “Performance Measures for Assessing Contour Trackers”. In: *Proceedings of 5th Asian Conference on Computer Vision (ACCV2002)*. 2002, pp. 314–319.
- [126] H. Wang and D. Suter. “A Novel Robust Method for Large Numbers of Gross Errors”. In: *Proceedings ICARCV2002*. 2002, pp. 326–331. DOI: [10.1109/ICARCV.2002.1234842](#).
- [127] H. Wang and D. Suter. “LTSD: A Highly Efficient Symmetry-Based Robust Estimator”. In: *Proceedings ICARCV2002*. 2002, pp. 332–337. DOI: [10.1109/ICARCV.2002.1234843](#).
- [128] 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.
- [129] A. Bab-Hadiashar and D. Suter. “Outlier Resistant GAIC Based Visual Data Segmentation”. In: *ACCV2000, Taipei, Taiwan*. 2000, pp. 1174–1179.
- [130] A. Bab-Hadiashar and D. Suter. “Simultaneous Model Recovery and Segmentation for Range Image Analysis”. In: *ACCV2000, Taipei, Taiwan*. 2000, pp. 467–471.
- [131] P. Tissainayagam and D. Suter. “Visual Tracking of Multiple Objects with Automatic Motion Model Switching”. In: *ICPR’2000, Barcelona, Spain*. 2000, pp. 1146–1149. DOI: [10.1109/ICPR.2000.903745](#).
- [132] A. Bab-Hadiashar and D. Suter. “Simultaneous Model Recovery and Segmentation Using Visual Data”. In: *DICTA ’99, Perth, Australia*. 1999, pp. 241–246.
- [133] P. Tissainayagam and D. Suter. “Contour Tracking in Image Sequences”. In: *DICTA ’99, Perth, Australia*. 1999, pp. 110–115.
- [134] P. Tissainayagam and D. Suter. “Performance of Visual Tracking Algorithms”. In: *DICTA ’99, Perth, Australia*. 1999, pp. 206–211.
- [135] P. Tissainayagam and D. Suter. “Performance Prediction and Analysis for Linear Visual Trackers”. In: *Irish Machine Vision and Image Processing Conference IMVIP’99*. 1999, pp. 131–147. ISBN: 1 872 327 22 2.
- [136] 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*. Vol. 2. 1998, pp. 599–606. DOI: [10.1007/3-540-63931-4\\_26](#).
- [137] 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*. Vol. 1. 1998, pp. 566–573. DOI: [10.1007/3-540-63930-6\\_168](#).
- [138] A Bab-Hadiashar and D. Suter. “Motion Segmentation: A robust approach”. In: *Proceedings of Interpretation of Visual Motion Workshop*. 1998, pp. 3–9.
- [139] A Bab-Hadiashar and D. Suter. “Robust Range Segmentation”. In: *14th International Conference on Pattern Recognition - ICPR’98*. Vol. 2. 1998, pp. 969–971. ISBN: 0-8186-8512-3. DOI: [10.1109/ICPR.2006.312](#).
- [140] 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*. Vol. 1. 1998, pp. 518–520. ISBN: 0-8186-8512-3. DOI: [10.1109/ICPR.1998.711194](#).
- [141] F. Chen and D. Suter. “Multiscale Image Representation and Edge Detection”. In: *Lecture Notes in Computer Science: 1352, Proceedings ACCV’98, Hong Kong*. Vol. 2. 1998, pp. 49–56. DOI: [10.1007/3-540-63931-4\\_19](#).

- [142] P. Tissainayagam and D. Suter. "Object Tracking in Image Sequences using Multiple Hypothesis Approach". In: *Proc., JCIS, N.C. USA, Nov. 1998*. 1998, pp. 473–475.
- [143] P. Tissainayagam and D. Suter. "Visual Feature Tracking with Automatic Motion Model Selection". In: *Proc., JCIS, N.C. USA, Nov. 1998*. 1998, pp. 322–325.
- [144] P. Tissainayagam and D. Suter. "Visual Tracking and Motion Determination Using the IMM Algorithm". In: *14th International Conference on Pattern Recognition - ICPR'98*. Vol. 1. 1998, pp. 289–291. ISBN: 0-8186-8512-3. DOI: [10.1109/ICPR.1998.711138](https://doi.org/10.1109/ICPR.1998.711138).
- [145] P. Tissainayagam and D. Suter. "Visual Tracking with Multiple Motion Models". In: *IAPR Machine Vision Applications (MVA'98), Chiba, Japan*. 1998, pp. 414–417.
- [146] A. Bab-Hadiashar and D. Suter. "Motion Based Segmentation Using Robust Statistics". In: *Proc., IAIF'97, Adelaide, Nov. 1997*. Ed. by H. Pan, M. Brooks, D. McMichael, and G. Newsam. 1997, pp. 271–280. ISBN: 0-646-33069-1.
- [147] A. Bab-Hadiashar and D. Suter. "Optic Flow Calculation Using Robust Statistics". In: *Proceedings of CVPR'97, Puerto Rico*. New York: IEEE, June 1997, pp. 988–993. DOI: [10.1109/CVPR.1997.609448](https://doi.org/10.1109/CVPR.1997.609448).
- [148] 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*. New York: IEEE, June 1997, pp. 120–127. DOI: [10.1109/NAMW.1997.609862](https://doi.org/10.1109/NAMW.1997.609862).
- [149] F. Chen and D. Suter. "Fast evaluation of vector splines in two dimensions". In: *Proc. 15th IMACS'97 World Conference on Scientific Computation, Modelling and Applied Mathematics, Berlin, August 1997*. Ed. by A. Sydow. Vol. 1. Wissenschaft & Technik Verlag, 1997, pp. 469–474. ISBN: 3-89685-551-4.
- [150] F. Chen and D. Suter. "Surface Reconstruction Using Multiple Order Laplacian Splines". In: *Proc. The 33rd Australian Applied Mathematics Conference, Lorne, Victoria*. (abstract). 1997.
- [151] P. Tissainayagam and D. Suter. "Comparison of Corner Detectors for Tracking Features in Image Sequences". In: *Proc., IAIF'97, Adelaide, Nov. 1997*. Ed. by H. Pan, M. Brooks, D. McMichael, and G. Newsam. 1997, pp. 171–181. ISBN: 0-646-33069-1.
- [152] A. Bab-Hadiashar and D. Suter. "Motion Segmentation Using Robust Motion Estimation". In: *Proceedings Image Segmentation Workshop 1996, Sydney*. The Australian Pattern Recognition Society, 1996, pp. 7–11.
- [153] A. Bab-Hadiashar and D. Suter. "Robust Optic Flow Estimation Using Least Median of Squares". In: *Proc. ICIP, Lausanne, Switzerland, Sept. 1996*. 1996, pp. 513–516. DOI: [10.1109/ICIP.1996.559546](https://doi.org/10.1109/ICIP.1996.559546).
- [154] F. Chen and D. Suter. "Modelling and Segmentation Using Laplacian Splines and Radial Basis Functions". In: *Proceedings Image Segmentation Workshop 1996, Sydney*. The Australian Pattern Recognition Society, 1996, pp. 115–119.
- [155] D. Suter and P. S. Richardson. "Historical Film Restoration and Video Coding". In: *Proceedings of PCS'96, Melbourne, Aust, March 1996*. 1996, pp. 389–394.
- [156] 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*. Vol. III. 1995, pp. 452–456.
- [157] A. Bab-Hadiashar, D. Suter, and R. Jarvis. "Two-dimensional motion extraction using image interpolation technique". In: *Applications of Digital Image processing XVIII, San Diego, July 1995*. Ed. by A. G. Tescher. SPIE, 1995, pp. 271–281.
- [158] 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*. IEEE, 1995, pp. II 49–52. DOI: [10.1109/ICIP.1995.537412](https://doi.org/10.1109/ICIP.1995.537412).

- [159] D. Suter. "Divergence-free Wavelets Made Easy". In: *Wavelet Applications in Signal and Image Processing III, San Diego, July 1995*. Ed. by A. F. Laine. SPIE, 1995, pp. 102–115. DOI: [10.1117/12.217642](#).
- [160] Y. Wu and D. Suter. "Historical Film Processing". In: *Applications of Digital Image processing XVIII, San Diego, July 1995*. Ed. by A. G. Tescher. SPIE, 1995, pp. 289–300. DOI: [10.1117/12.217412](#).
- [161] Y. Wu and D. Suter. "Noisy Image Sequence Registration and Segmentation". In: *Proceedings of Second Asian Conference on Computer Vision, ACCV'95*. Singapore, Dec. 1995, pp. 1533–1537.
- [162] D. Suter. "Motion Estimation and Vector Splines". In: *Proc. CVPR'94, Seattle WA*. IEEE, June 1994, pp. 939–942. DOI: [10.1109/CVPR.1994.323929](#).
- [163] D. Suter. "Thin-plate Splines in Computer Vision". In: *Proceedings of Australasian Workshop on Thin-plate Splines*. Sydney, Feb. 1994.
- [164] D. Suter. "Evaluation of Splines Using Multipole-like Methods". In: *Proc. 29th Applied mathematics Conference*. Adelaide: Australian Mathematical Society, Division of Applied Mathematics, Feb. 1993, p. C66.
- [165] D. Suter. "Mixed Finite Elements and Whitney Forms in Visual Reconstruction". In: *Geometric Methods in Computer Vision II, San Diego, July 1993*. Ed. by B. C. Vemuri. SPIE, 1993, pp. 51–62. DOI: [10.1117/12.146645](#).
- [166] D. Suter. "Multipole Methods in Visual Reconstruction". In: *Geometric Methods in Computer Vision II, San Diego, July 1993*. Ed. by B. C. Vemuri. SPIE, 1993, pp. 16–26. DOI: [10.1117/12.146628](#).
- [167] D. Suter. "Coupled Derivative/Mixed Finite Element Approach to Visual Reconstruction". In: *Mini Conference on Inverse Problems in Partial Differential Equations*. Ed. by A. K. Pani and R. S. Anderssen. Vol. 31. Canberra, Australia: Australian National University, Centre for Mathematical Analysis, 1992, pp. 222–246.
- [168] 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*. Vol. 1. Singapore: Institution of Engineers, Singapore, Sept. 1992, pp. CV11.4.1–CV11.4.5.
- [169] D. Suter. "Vector Spline and Radial Basis Function Methods in Visual Motion Analysis". In: *Advances in Computer Methods for Partial Differential Equations - VII*. Brunswick, New Jersey: IMACS, June 1992, pp. 714–720.
- [170] 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*. 1991, pp. 223–228.
- [171] 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)*. Nov. 1991, pp. 1898–1905. DOI: [10.1109/IJCNN.1991.170649](#).
- [172] D. Suter. "Coupled Depth-Slope Model Based Upon Augmented Lagrangian Techniques". In: *Geometric Methods in Computer Vision*. Ed. by B. C. Vemuri. Vol. 1570. SPIE, 1991, pp. 129–139. DOI: [10.1117/12.48419](#).
- [173] D. Suter. "Generalization of the Harris 'Coupled Depth-Slope' Analog Visual Reconstruction Networks". In: *Proceedings of IJCNN-91-Seattle*. Seattle, July 1991, pp. I 729–739. DOI: [10.1109/IJCNN.1991.155270](#).
- [174] D. Suter. "Mixed Finite Element and Neural Network Methods of Visual Reconstruction". In: *13th IMACS World Congress on Computation and Applied Mathematics*. Vol. 4. Dublin, July 1991, pp. 1946–1949.
- [175] D. Suter. "Mixed Finite Element Methods in Motion Analysis". In: *DICTA-91 Digital Image Computing: Techniques and Applications*. Melbourne, Australia: Australian Pattern Recognition Society, Dec. 1991, pp. 397–404.
- [176] D. Suter. "Parallel Event Driven Simulation". In: *9th Aust. Microelectronics Conference*. July 1990, pp. 211–213.

- [177] D. Suter and H. A. Cohen. “Incorporating knowledge via regularization theory: applications in vision and image processing”. In: *Lecture Notes in Computer Science, AI’88, 2nd Australian Joint Artificial Intelligence Conference, Adelaide, Australia, Nov. 1988 Proceedings*. Ed. by C. J. Barter and M. J. Brooks. Vol. 406. Lecture Notes in Computer Science. Berlin: Springer Verlag, 1990, pp. 379–394. DOI: [10.1001/3-540-52062-7\\_91](#).
- [178] H. Cohen and D. Suter. “Adaptive Enhancement of Perceived Contrast in Diffuse Images: Case Study: Electron Microscope Images”. In: *ICIP89, Singapore*. Sept. 1989. Chap. 1, pp. 16–20.
- [179] D. Suter. “A new optimization method: applications in interpolation and computer vision”. In: *Proc. ACSC-12, Wollongong, Aust.* Feb. 1989, pp. 305–316.
- [180] D. Suter. “Analog Signal Processing: Applications in Computer Vision”. In: *Proc. 1989 Aust. Symp. on Signal Processing and Applications, Adelaide*. Apr. 1989, pp. 236–239.
- [181] D. Suter. “Inference In Visual Reconstruction”. In: *Proc. AI’89, Melbourne, Australia*. 1989, pp. 58–67.
- [182] D. Suter. “Transputer Based Stereo Vision System”. In: *Proc. Australian Transputer and OCCAM User Group, Melb. Aust.* June 1989, pp. 5–10.
- [183] D. Suter, X. Deng, H. Cohen, and T. Dillon. “Development and implementation of parallel vision algorithms”. In: *Vision89, Chicago*. Apr. 1989. Chap. 3, pp. 1–14.
- [184] J. You, D. Suter, X. Deng, and H. Cohen. “Parallel implementation of vision algorithms”. In: *Beijing International Symposium of Young Computer Scientists*. Aug. 1989, pp. 542–544.
- [185] D. Suter and X. Deng. “Neural Net Simulation on Transputers”. In: *Proc. IEEE Systems, Man, and Cybernetics Conf., Beijing*. Aug. 1988, pp. 694–697. DOI: [10.1109/ICSMC.1988.754394](#).
- [186] D. Suter and X. Deng. “Neural Net Simulation on Transputers”. In: *Proc. Australian Transputer and OCCAM User Group, Melb. Aust.* June 1988, pp. 43–48.
- [187] D. Suter. “Neural Net Surface Interpolation”. In: *Proc. 1987 Int’l. Conf. Systems, Man, and Cybernetics, Alexandria, VA*. Oct. 1987, pp. 118–123.
- [188] D. Suter and H. A. Cohen. “Fractals: Representations for Visual Recognition and for Graphics”. In: *Ausgraph 87, Perth Aust.* May 1987, 25 pages.
- [189] D. Suter and H. A. Cohen. “Modelling of Texture Perception”. In: *Proc. Int’l. Conf. Modelling and Simulation, Melb. Aust.* Oct. 1987, pp. 430–435.
- [190] D. Suter. “Planning in Machine Vision Tasks”. In: *Proc. 1st Australian Artificial Intelligence Congress, Melb. Aust.* Nov. 1986, 19 pages in Section E (Robotics).

## Part of Book

- [1] Therdsak Tangkuampien and David Suter. “KSM Based Machine Learning for Markerless Motion Capture”. In: ed. by Liang Wang, Li Cheng, and Guoying Zhao. Hershey, PA, USA: IGI Global, 2010, pp. 74–106. DOI: [10.4018/978-1-60566-900-7.ch005](#).
- [2] D. Suter and H. Wang. “Robust Fitting Using Mean Shift: Applications in Computer Vision”. In: *Theory and Applications of Recent Robust Methods*. Ed. by Mia Hubert, Greet Pison, Anja Struyf, and Stefan Van Aelst. Basel: Birkhäuser Basel, 2004, pp. 307–318. ISBN: 978-3-0348-7958-3. DOI: [10.1007/978-3-0348-7958-3\\_27](#).
- [3] A. Bab-Hadiashar and D. Suter. “Range and Motion Segmentation”. In: *Data Segmentation and Model Selection for Computer Vision*. Ed. by A. Bab-Hadiashar and D. Suter. Springer-Verlag, 2000. Chap. 5, pp. 119–142. ISBN: 0-387-98815-7. DOI: [10.1007/978-0-387-21528-0](#).



- [4] D. Suter. “Visual Reconstruction and Data Fusion”. In: *Progress in Neural Networks*. Ed. by O. M. Omidvar. Vol. 4: Machine Vision. Greenwich, Connecticut: Ablex, 1997. Chap. 2, pp. 29–76. ISBN: 9780893919672. URL: <https://www.intellectbooks.com/progress-in-neural-networks-volume-one>.
- [5] D. Suter. “Inverse Problems in Machine Vision”. In: *Computational Techniques and Applications*. Ed. by W. L. Hogarth and B. J. Noye. New York: Hemisphere, 1990, pp. 509–516.

## Theses

- [1] D. Suter. “Co-operative Algorithms for Machine Vision: Models, problem Formulation, and Neural Network Implementations”. PhD Thesis. La Trobe University, Bundoora 3083, Aust., Aug. 1990. URL: <http://trove.nla.gov.au/work/23523162>.

## Misc. (edited proceedings, special issues, invited talks)

- [1] JT Schousboe, JR Lewis, BA Monchka, SR Reid, JM Davidson, D Kimelman, M Jafari Jozani, Cassandra Smit, Marc Sim, Zulqarnain Gilani, David Suter, and WD Leslie. *Joint Prediction Incident Fractures by Prevalent Vertebral Fracture and Abdominal Aortic Calcification Ascertained by Automated Algorithms in Clinical Practice*. Plenary Poster Presentation, ASBMR 2023, The American Society for Bone and Mineral Research Annual Meeting (accepted July 18, 2023). 2023.
- [2] D. Suter. *If deep learning is the solution: what do we miss?* (Invited Talk/Keynote) TradiCV workshop of ICCV2021. 2021.
- [3] B. Lovell and D. Suter. *Message from the general co-chairs*. IEEE Int. Conf. on Image Processing (ICIP) 2013 General Co-Chairs. 2013. DOI: [10.1109/ICIP.2013.6737997](https://doi.org/10.1109/ICIP.2013.6737997).
- [4] D. Suter. *Image Analysis - is it just applied statistical analysis and approximation theory?* (Invited Talk) Advanced Concepts for Intelligent Systems 2010, Sydney, December, 2010. 2010.
- [5] 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. 2010.
- [6] D. Suter. *Finding Structure in Computer Vision Data*. (Keynote Talk) IVCNZ, Waikato Univeristy, Hamilton, New Zealand, December 2007. 2007.
- [7] D. Suter. *High dimensional data analysis in computer vision*. (Keynote Talk) IEEE 8th Int. Conf. on Computer and Information Technology, Sydney, July 2008. 2007. DOI: [10.1109/CIT.2008.4594637](https://doi.org/10.1109/CIT.2008.4594637).
- [8] D. Suter. *Statistics of Linear and Non-Linear Subspace Analysis*. (Invited Talk) MIRU International Workshop on Computer Vision Hiroshima, Japan, July 29, 2007. 2007.
- [9] 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. DOI: [10.1007/b104157](https://doi.org/10.1007/b104157).
- [10] D. Suter and D. Comaniciu K. Katani (Guest Editors). *Image and Vision Computing*. vol. 22, no. 2, February 2004. DOI: [10.1016/S0262-8856\(03\)00162-8](https://doi.org/10.1016/S0262-8856(03)00162-8).
- [11] D. Suter (Ed.) *Proceedings of Statistical Methods in Video Processing workshop*. 2002.
- [12] D. Suter (Guest Editor). *International Journal of Image and Graphics*. vol. 2, no. 2, April 2002. DOI: [10.1142/S021946780200055X](https://doi.org/10.1142/S021946780200055X).

- [13] D. Suter and A. Bab-Hadiashar (Eds.) *Proceedings of the Fifth Asian Conference on Computer Vision*. 2002.
- [14] D. Suter and A. Bab-Hadiashar (Eds.) *Proceedings of the Sixth Digital Image Computing: Techniques and Applications conference*. 2002.
- [15] D. Suter. *Motion Estimation: Historical Film Restoration and Coding*. The Second Workshop on Perceptive Systems 25-26 Jan., Curtin Uni. of Technology, Aust. Jan. 1996.
- [16] D. Suter. *Inference in Low Level Vision*. (abstract) 1989 Robertson Symposium, 19-24 Sept., ANU, Canberra, Aust., Research School of Biological Sciences and Centre for Visual Sciences, ANU. Sept. 1989.