

Publications of Jiří Matas

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- [1] Tomáš Vojtř and Jiří Matas. The enhanced flock of trackers. In Roberto Cipolla, Sebastiano Battiato, and Giovanni Maria Farinella, editors, *Registration and Recognition in Images and Videos*, volume 532 of *Studies in Computational Intelligence*, pages 113–136. Springer, New York, US, January 2014.
- [2] Dmytro Mishkin, Michal Perdoch, and Jiří Matas. Two-view matching with view synthesis revisited. In Christopher Hollitt John Lewis Mengjie Zhang Taehyun Rhee, Ramesh Rayudu, editor, *2013 28th International Conference of Image and Vision Computing New Zealand (IVCNZ 2013)*, pages 448–453, IEEE Operations Center, 445 Hoes Lane, Piscataway, USA, November 2013. IEEE.
- [3] James Pritts, Ondřej Chum, and Jiří Matas. Approximate models for fast and accurate epipolar geometry estimation. In Christopher Hollitt John Lewis Mengjie Zhang Taehyun Rhee, Ramesh Rayudu, editor, *2013 28th International Conference of Image and Vision Computing New Zealand (IVCNZ 2013)*, pages 112–117, IEEE Operations Center, 445 Hoes Lane, Piscataway, USA, November 2013. IEEE.
- [4] Milan Šulc and Jiří Matas. Kernel-mapped histograms of multi-scale lbps for tree bark recognition. In Christopher Hollitt John Lewis Mengjie Zhang Taehyun Rhee, Ramesh Rayudu, editor, *2013 28th International Conference of Image and Vision Computing New Zealand (IVCNZ 2013)*, pages 88–93, IEEE Operations Center, 445 Hoes Lane, Piscataway, USA, November 2013. IEEE.
- [5] Tomáš Vojtř and Jiří Matas. Increasing robustness of the flock of trackers. Research Report CTU–CMP–2012–14, Center for Machine Perception, K13133 FEE Czech Technical University, Prague, Czech Republic, June 2012.
- [6] Dmytro Mishkin, Michal Perdoch, and Jiří Matas. Two-view matching with view synthesis revisited. Research Report CTU–CMP–2013–15, Center for Machine Perception, K13133 FEE Czech Technical University, Prague, Czech Republic, June 2013.
- [7] Andrej Mikulik, Michal Perdoch, Ondřej Chum, and Jiří Matas. Learning vocabularies over a fine quantization. *International Journal of Computer Vision*, 103(1):163–175, May 2013.
- [8] Hongping Cai, Tomáš Werner, and Jiří Matas. Fast detection of multiple textureless 3-D objects. In Mei Chen, Bastian Leibe, and Bernd Neumann, editors, *Computer Vision Systems - 9th International Conference, ICVS 2013, St. Petersburg, Russian Federation, July 16-18, 2013. Proceedings*, volume 7963 of *Lecture Notes in Computer Science*, pages 103–112, Heidelberg, Germany, July 2013. Springer.
- [9] Tomáš Vojtř, Jana Nosková, and Jiří Matas. Robust scale-adaptive mean-shift for tracking. In Joni-Kristian Kämäräinen and Markus Koskela, editors, *SCIA 2013: Proceedings of the 18th Scandinavian Conference on Image Analysis*, volume 7944 of *Lecture Notes in Computer Science*, pages 652–663, Berlin, Germany, June 2013. Springer.
- [10] Andrej Mikulik, Ondřej Chum, and Jiří Matas. Image retrieval for online browsing in large image collections. In Nieves Brisaboa, Oscar Pedreira, and Pavel Zezula, editors, *Similarity Search and Applications*, 8199, pages 3–15, Heidelberg, Germany, October 2013. Springer.
- [11] Lukáš Neumann and Jiří Matas. On combining multiple segmentations in scene text recognition. In *ICDAR 2013: Proceedings of the 12th International Conference on Document Analysis and Recognition*, pages 523–527, Piscataway, US, August 2013. IEEE.

- [12] Karel Lebeda, Simon Hadfield, Richard Bowden, and Jiří Matas. Long-term tracking through failure cases. In *2013 IEEE International Conference on Computer Vision (ICCV 2013) Workshops*, pages 153–160, Piscataway, US, December 2013. IEEE.
- [13] Lukáš Neumann and Jiří Matas. Scene text localization and recognition with oriented stroke detection. In *2013 IEEE International Conference on Computer Vision (ICCV 2013)*, pages 97–104, Piscataway, US, December 2013. IEEE.
- [14] Rahul Raguram, Ondřej Chum, Marc Pollefeys, Jiří Matas, and Jan-Michael Frahm. Usac: A universal framework for random sample consensus. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 35(8):2022–2038, August 2013.
- [15] Matej Kristan, Roman Pflugfelder, Ales Leonardis, Jiří Matas, Fatih Porikli, Luka Cehovin, Georg Nebel, Gustavo Fernandez, and Tomáš et al. Vojír. The visual object tracking vot2013 challenge results. In *2013 IEEE International Conference on Computer Vision (ICCV 2013) Workshops*, pages 98–111, Piscataway, US, December 2013. IEEE.
- [16] Jan Šochman and Jiří Matas. Motion-based tracking of multiple low-relative-depth objects. Research Report CTU–CMP–2012–10, Center for Machine Perception, K13133 FEE Czech Technical University, Prague, Czech Republic, May 2012. Confidential.
- [17] Lukáš Neumann and Jiří Matas. Real-time scene text localization and recognition. In *CVPR 2012: Proceedings of the 2012 IEEE Computer Society Conference on Computer Vision and Pattern Recognition*, pages 3538–3545, Los Alamitos, USA, June 2012. IEEE Computer Society Press.
- [18] Guoying Zhao, Timo Ahonen, Jiří Matas, and Matti Pietikäinen. Rotation-invariant image and video description with local binary pattern features. *IEEE Transactions on Image Processing*, 21(4):1465–1477, April 2012.
- [19] Claudio Caraffi, Tomas Vojir, Jiri Trefny, Jan Sochman, and Jiri Matas. A system for real-time detection and tracking of vehicles from a single car-mounted camera. In *The 15th IEEE Intelligent Transportation Systems Conference*, IEEE International Conference on Intelligent Transportation Systems-ITSC, pages 975–982, Piscataway, USA, September 2012. IEEE, IEEE.
- [20] Ondřej Chum and Jiří Matas. Fast computation of min-hash signatures for image collections. In *CVPR 2012: Proceedings of the 2012 IEEE Computer Society Conference on Computer Vision and Pattern Recognition*, pages 3077–3084, New York, USA, June 2012. IEEE Computer Society, IEEE Computer Society Press.
- [21] Ondřej Chum and Jiří Matas. Homography estimation from correspondences of local elliptical features. In *ICPR '12: Proceedings of 21st International Conference on Pattern Recognition*, pages 3236–3239, 10662 Los Vaqueros Circle, Los Alamitos, USA, November 2012. IAPR, IEEE Computer Society. CD-ROM.
- [22] Karel Lebeda, Jiří Matas, and Richard Bowden. Tracking the untrackable: How to track when your object is featureless. In Jong-Il Park and Junmo Kim, editors, *Computer Vision – ACCV 2012 Workshops*, volume 7729 of *LNCS*, pages 343–355, Heidelberg, Germany, November 2013. Springer.
- [23] Karel Lebeda, Jiří Matas, and Ondřej Chum. Fixing the locally optimized ransac. In Richard Bowden, John Collomosse, and Krystian Mikolajczyk, editors, *Proceedings of the British Machine Vision Conference*, pages 1013–1023, London, UK, September 2012. BMVA.

- [24] Lukáš Neumann and Jiří Matas. A real-time scene text to speech system. In Andrea Fusiello, Vittorio Murino, and Rita Cucchiara, editors, *Computer Vision - ECCV 2012. Workshops and Demonstrations*, volume 7585 of *Lecture Notes in Computer Science*, pages 619–622, Berlin, Germany, October 2012. Springer.
- [25] Nataliya Strokin, Jiří Matas, Tuomas Eerola, Lasse Lensu, and Heikki Kalviainen. Detection of bubbles as concentric circular arrangements. In *ICPR '12: Proceedings of 21st International Conference on Pattern Recognition*, pages 2655–2659, 10662 Los Vaqueros Circle, Los Alamitos, USA, November 2012. IAPR, IEEE Computer Society. CD-ROM.
- [26] Jan Dupač, Jiří Matas, and Filip Naiser. Ultra-fast tracking based on zero-shift points. *Image and Vision Computing*, 30(12):1016–1031, December 2012.
- [27] Zdenek Kalal, Krystian Mikolajczyk, and Jiří Matas. Tracking-learning-detection. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 34(7):1409–1422, July 2012.
- [28] Karel Lebeda, Jiří Matas, and Ondřej Chum. Fixing the locally optimized RANSAC – Full experimental evaluation. Research Report CTU–CMP–2012–17, Center for Machine Perception, Czech Technical University, Prague, Czech Republic, September 2012.
- [29] Ondřej Chum, Andrej Mikulik, Michal Perdoch, and Jiří Matas. Total recall ii: Query expansion revisited. In *CVPR 2011: Proceedings of the 2011 IEEE Computer Society Conference on Computer Vision and Pattern Recognition*, pages 889–896, Los Alamitos, USA, June 2011. IEEE Computer Society, IEEE Computer Society. CD-ROM.
- [30] Ondřej Chum and Jiří Matas. Planar affine rectification from change of scale. In Ron Kimmel, Reinhard Klette, and Akihiro Sugimoto, editors, *ACCV 2010: Proceedings of the 10th Asian Conference on Computer Vision, Part IV*, volume 6495 of *LNCS*, pages 347–360, Heidelberg, Germany, November 2011. Springer.
- [31] Jan Dupač, Jiří Matas, and Václav Hlaváč. Ultra-fast tracking based on zero-shift points. Research Report CTU–CMP–2011–04, Department of Cybernetics, Faculty of Electrical Engineering, Czech Technical University, Prague, Czech Republic, May 2011.
- [32] Lukáš Neumann and Jiří Matas. A method for text localization and recognition in real-world images. In Ron Kimmel, Reinhard Klette, and Akihiro Sugimoto, editors, *ACCV 2010: Proceedings of the 10th Asian Conference on Computer Vision, Part III*, volume 6495 of *LNCS*, pages 770–783, Heidelberg, Germany, November 2011. Springer.
- [33] Lukáš Neumann and Jiří Matas. Text localization in real-world images using efficiently pruned exhaustive search. In *Document Analysis and Recognition (ICDAR), 2011 International Conference on*, pages 687–691, Los Alamitos, United States, September 2011. IEEE Computer Society.
- [34] Hongping Cau, Krystian Mikolajczyk, and Jiří Matas. Learning linear discriminant projections for dimensionality reduction of image descriptors. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 33(2):338–352, February 2011.
- [35] Jan Dupač and Jiří Matas. Ultra-fast tracking based on zero-shift points. In Jonathon A. Chambers and Alle-Jan van der Veen, editors, *ICASSP'11: Proceedings of the IEEE International Conference on Acoustics, Speech and Signal Processing*, pages 1429–1432, Piscataway, USA, May 2011. IEEE.

- [36] Liam Ellis, Nicolas Dowson, Jiří Matas, and Richard Bowden. Linear regression and adaptive appearance models for fast simultaneous modelling and tracking. *International Journal of Computer Vision*, 95(2):154–179, accepted for publication on: 7 June 2010 2011.
- [37] Cedric Lemaitre, Michal Perdoch, Abdul Rahmoune, Jiří Matas, and Johel Miteran. Detection and matching of curvilinear structures. *Pattern Recognition*, 44(7):1514–1527, July 2011.
- [38] Lukáš Neumann and Jiří Matas. Estimating hidden parameters for text localization and recognition. In Andreas Wendel, Sabine Sternig, and Martin Godec, editors, *CVWW '11: Proceedings of the 16th Computer Vision Winter Workshop*, pages 29–36, Inffeldgasse 16/II, Graz, Austria, February 2011. Graz University of Technology.
- [39] Tomáš Vojtíš and Jiří Matas. Robustifying the flock of trackers. In Andreas Wendel, Sabine Sternig, and Martin Godec, editors, *CVWW '11: Proceedings of the 16th Computer Vision Winter Workshop*, pages 91–97, Inffeldgasse 16/II, Graz, Austria, February 2011. Graz University of Technology.
- [40] Ondřej Chum and Jiří Matas. Unsupervised discovery of co-occurrence in sparse high dimensional data. In *CVPR 2010: Proceedings of the 2010 IEEE Computer Society Conference on Computer Vision and Pattern Recognition*, pages 3416–3423, Madison, USA, June 2010. Omnipress.
- [41] Ondřej Chum and Jiří Matas. Large scale discovery of spatially related images. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 32(2):371–377, February 2010.
- [42] Andrej Mikulik, Michal Perdoch, Ondřej Chum, and Jiří Matas. Learning a fine vocabulary. In Kostas Daniilidis, Petros Maragos, and Nikos Paragios, editors, *Computer Vision - ECCV 2010, 11th European Conference on Computer Vision, Proceedings, Part III*, volume 6313 of *Lecture Notes in Computer Science*, pages 1–14, Heidelberg, Germany, September 2010. Foundation for Research and Technology-Hellas (FORTH), Springer.
- [43] Andrej Mikulik, Jiří Matas, Michal Perdoch, and Ondřej Chum. Construction of precise local affine frames. In Roy Sterritt, editor, *ICPR'2010: Proceedings of the 20th International Conference on Pattern Recognition*, pages 3565–3569, 10662 Los Vaqueros Circle, Los Alamitos, USA, August 2010. IEEE Computer Society.
- [44] Petr Doubek, Jiří Matas, Michal Perdoch, and Ondřej Chum. Image matching and retrieval by repetitive patterns. In Roy Sterritt, editor, *ICPR'2010: Proceedings of the 20th International Conference on Pattern Recognition*, pages 3195–3198, 10662 Los Vaqueros Circle, Los Alamitos, USA, August 2010. IEEE Computer Society.
- [45] Helmut Grabner, Jiří Matas, Luc Van Gool, and Philippe Cattin. Tracking the invisible: Learning where the object might be. In *CVPR 2010: Proceedings of the 2010 IEEE Computer Society Conference on Computer Vision and Pattern Recognition*, pages 1285–1292, Madison, USA, June 2010. Omnipress.
- [46] Zdenek Kalal, Krystian Mikolajczyk, and Jiří Matas. Face-TLD: Tracking-learning-detection applied to faces. In Bonnie Law, editor, *17th IEEE International Conference on Image Processing (ICIP'2010)*, pages 3789–3792, 445 Hoes Lane, Piscataway, USA, September 2010. IEEE Signal Processing Society.
- [47] Zdenek Kalal, Krystian Mikolajczyk, and Jiří Matas. Forward-backward error: Automatic detection of tracking failures. In Roy Sterritt, editor, *ICPR'2010: Proceedings of the 20th International Conference on Pattern Recognition*, pages 2756–2760, 10662 Los Vaqueros Circle, Los Alamitos, USA, August 2010. IEEE Computer Society.

- [48] Zdenek Kalal, Jiří Matas, and Krystian Mikolajczyk. P-n learning: Bootstrapping binary classifiers by structural constraints. In *CVPR 2010: Proceedings of the 2010 IEEE Computer Society Conference on Computer Vision and Pattern Recognition*, pages 49–56, Madison, USA, June 2010. Omnipress.
- [49] Štěpán Obdržálek and Jiří Matas. A voting strategy for visual ego-motion from stereo. In *IV 2010: Proceedings of the IEEE Intelligent Vehicles Symposium*, pages 382–387, Madison, USA, June 2010. IEEE, Omnipress. CD-ROM.
- [50] Jan Čech, Jiří Matas, and Michal Perdoch. Efficient sequential correspondence selection by cosegmentation. *IEEE Transactions Pattern Analysis and Machine Intelligence*, 32(9):1568–1581, September 2010.
- [51] Václav Hlaváč, Radim Šára, Jiří Matas, Tomáš Pajdla, Jana Kostlivá, Vojtěch Franc, Petr Doubek, Michal Havlena, Michal Jančošek, Akihiko Torii, and Radim Tyleček. Stereoscopic imaging project summary report. Research Report CTU–CMP–2009–15, Center for Machine Perception, K13133 FEE Czech Technical University, Prague, Czech Republic, October 2009.
- [52] Zdenek Kalal, Jiri Matas, and Krystian Mikolajczyk. Online learning of robust object detectors during unstable tracking. In *3rd On-line learning for Computer Vision Workshop OLCV'09 (held in conjunction with ICCV 2009)*, pages 1417–1424, Piscataway, USA, October 2009. IEEE Computer Society, IEEE Computer Society. CD-ROM.
- [53] Jiří Matas Michal Perdoch, Ondřej Chum. Efficient representation of local geometry for large scale object retrieval. In *IEEE Computer Society Conference on Computer Vision and Pattern Recognition*, pages 9–16, Madison, WI, USA, June 2009. Omnipress.
- [54] Ondřej Chum, Michal Perdoch, and Jiří Matas. Geometric min-hashing: Finding a (thick) needle in a haystack. In *CVPR 2009: Proceedings of the 2009 IEEE Computer Society Conference on Computer Vision and Pattern Recognition*, pages 17–24, Madison, USA, June 2009. Omnipress. CD-ROM.
- [55] Lukáš Cerman, Václav Hlaváč, and Jiří Matas. Sputnik tracker: Looking for a companion improves robustness of the tracker. In Arnt-Børre Salberg, Jon Yngve Hardeberg, and Robert Jenssen, editors, *SCIA 2009: Proceedings of the 16th Scandinavian Conference on Image Analysis*, number 5575 in Lecture Notes in Computer Science, pages 291–300, Berlin, Germany, June 2009. Springer-Verlag.
- [56] Petr Doubek and Jiří Matas. Detection of 2D lattice patterns of repetitive elements and their use for image retrieval. Research Report CTU–CMP–2009–16, Center for Machine Perception, K13133 FEE Czech Technical University, Prague, Czech Republic, October 2009.
- [57] Petr Doubek and Jiří Matas. Layered detection of 0D, 1D and 2D repetitive patterns in images. Research Report CTU–CMP–2009–17, Center for Machine Perception, K13133 FEE Czech Technical University, Prague, Czech Republic, October 2009.
- [58] Jan Šochman and Jiří Matas. Learning fast emulators of binary decision processes. *International Journal of Computer Vision*, 83(2):149–163, June 2009.
- [59] K. Zimmermann, T. Svoboda, and J. Matas. Anytime learning for the nosllip tracker. *Image and Vision Computing, Special Issue: Perception Action Learning*, 27(11):1695–1701, October 2009.
- [60] Karel Zimmermann, Jiří Matas, and Tomáš Svoboda. Tracking by an optimal sequence of linear predictors. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 31(4):677–692, April 2009.

- [61] Timo Ahonen, Jiří Matas, Chu He, and Pietikäinen Matti. Rotation invariant image description with local binary pattern histogram fourier features. In Arnt-Børre Salberg, Jon Yngve Hardeberg, and Robert Jenssen, editors, *SCIA 2009: Proceedings of the 16th Scandinavian Conference on Image Analysis*, number 5575 in Lecture Notes in Computer Science, pages 61–70, Berlin, Germany, June 2009. Springer-Verlag.
- [62] Markus Vincze, Michael Zillich, Wolfgang Ponweiser, Vaclav Hlavac, Jiri Matas, Stepan Obdrzalek, Hilary Buxton, Jonathan Howell, Kingsley Sage, Antonis Argyros, Christoph Eberst, and Gerald Umgeher. Integrated vision system for the semantic interpretation of activities where a person handles objects. *Computer Vision and Image Understanding*, 113(6):682–692, June 2009.
- [63] Jan Čech, Jiří Matas, and Michal Perđoch. Efficient sequential correspondence selection by cosegmentation. In *CVPR 2008: Proceedings of the 2008 IEEE Computer Society Conference on Computer Vision and Pattern Recognition*, page 8, Madison, USA, June 2008. Omnipress. cd-rom.
- [64] Ondřej Chum and Jiří Matas. Optimal randomized ransac. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 30(8):1472–1482, August 2008.
- [65] Petr Doubek, Michal Perđoch, Jiří Matas, and Jan Šochman. Mobile mapping of vertical traffic infrastructure. In Janez Perš, editor, *CVWW 2008: Proceedings of the 13th Computer Vision Winter Workshop*, pages 115–122, Ljubljana, Slovenia, February 2008. Slovenian Pattern Recognition Society.
- [66] Helmut Grabner, Jan Šochman, Horst Bischof, and Jiří Matas. Training sequential on-line boosting classifier for visual tracking. In G. Borgefors and P. Flynn, editors, *ICPR 2008: Proceedings of the 19th International Conference on Pattern Recognition*, page 4, 2600 Anderson Street, Madison, USA, December 2008. IAPR, Omnipress. CD-ROM.
- [67] Jiří Matas and Jan Šochman. *Wald’s Sequential Analysis for Time-constrained Vision Problems*, volume 8 of *Lecture Notes in Electrical Engineering*, chapter 5, pages 57–77. Springer, Springer Science+Business Media, LCC, 233 Spring Street, NY 10013, New York, USA, 2008.
- [68] Štěpán Obdrzálek, Michal Perđoch, and Jiří Matas. Dense linear-time correspondences for tracking. In *Proceedings of Workshop on Visual Localization for Mobile Platforms held in conjunction with CVPR 2008*, page 8, Piscataway, USA, June 2008. IEEE Computer Society, IEEE Computer Society. CD-ROM.
- [69] Karel Zimmermann, Tomáš Svoboda, and Jiří Matas. Simultaneous learning of motion and appearance. In *The 1st International Workshop on Machine Learning for Vision-based Motion Analysis, In conjunction with the 10th European Conference on Computer Vision 2008*, page 12, Grenoble, France, October 2008. INRIA Rhone-Alpes.
- [70] Hongping Cai, Krystian Mikolajczyk, and Jiří Matas. Learning linear discriminant projections for dimensionality reduction of image descriptors. In M. Everingham, C. Needham, and R. Fraille, editors, *BMVC 2008: Proceedings of the 19th British Machine Vision Conference*, volume 1, pages 503–512, London, UK, September 2008. BMVA.
- [71] Liam Ellis, Jiří Matas, and Richard Bowden. Online learning and partitioning of linear displacement predictors for tracking. In M. Everingham, C. Needham, and R. Fraille, editors, *BMVC 2008: Proceedings of the 19th British Machine Vision Conference*, volume 1, pages 33–42, London, UK, September 2008. BMVA.

- [72] Zdenek Kálal, Jiří Matas, and Krystian Mikolajczyk. Weighted sampling for large-scale boosting. In M. Everingham, C. Needham, and R. Fraille, editors, *BMVC 2008: Proceedings of the 19th British Machine Vision Conference*, volume 1, pages 413–422, London, UK, September 2008. BMVA.
- [73] Simon Baker, Jiří Matas, and Ramin Zabih. Guest editors introduction to the special section on cvpr papers. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, volume 30, number 8, October 2008. ISSN 0162-8828.
- [74] Jiří Matas and Jan Šochman. Wald’s sequential analysis for time-constrained vision problems. In Seth Hutchinson, editor, *IEEE International Conference on Robotics and Automation, Workshops and Tutorials*, page 10, Piscataway, USA, April 2007. IEEE, IEEE. CDROM, invited paper.
- [75] Jan Šochman and Jiří Matas. Learning a fast emulator of a binary decision process. In Yasushi Yagi, Sing Bing Kang, In So Kweon, and Hongbin Zha, editors, *Computer Vision - ACCV 2007. Proceedings 8th Asian Conference on Computer Vision*, volume II of *LNSC*, pages 236–245, Heidelberg, Germany, November 2007. Springer. Sang Uk Lee Outstanding Paper Award.
- [76] Karel Zimmermann, Tomáš Svoboda, and Jiří Matas. Adaptive parameter optimization for real-time tracking. In *Proceedings of 11th IEEE International Conference on Computer Vision, workshop on Non-rigid registration and tracking through learning*, page 8, Madison, USA, October 2007. Omni-press.
- [77] Hugo Cornelius, Michal Perďoch, Jiří Matas, and Gareth Loy. Efficient symmetry detection using local affine frames. In Bjarne K. Ersbøll and Kim Steenstrup Pedersen, editors, *SCIA 2007: Proceedings of 15th Scandinavian Conference on Image Analysis*, volume 4522 of *Lecture Notes in Computer Science*, pages 152–161, Berlin, Germany, June 2007. Springer.
- [78] Liam Ellis, Jiří Matas, Nicholas Dowson, and Richard Bowden. Linear predictors for fast simultaneous modeling and tracking. In Dimitris Metaxas, Baba Vemuri, Amnon Shashua, and Harry Shum, editors, *Workshop on Non-rigid Registration and Tracking through Learning - NRTL, at ICCV 2007: Proceedings of Eleventh IEEE International Conference on Computer Vision*, page 8, Los Alamitos, USA, October 2007. IEEE Computer Society, IEEE Computer Society Press. CDROM.
- [79] Krystian Mikolajczyk and Jiří Matas. Improving sift for fast tree matching by optimal linear projection. In Dimitris Metaxas, Baba Vemuri, Amnon Shashua, and Harry Shum, editors, *ICCV 2007: Proceedings of Eleventh IEEE International Conference on Computer Vision*, page 8, Los Alamitos, USA, October 2007. IEEE Computer Society, IEEE Computer Society Press. CDROM.
- [80] Cédric Lemaitre, Johel Miteran, and Jiří Matas. Definition of a model-based detector of curvilinear regions. In Walter G. Kropatsch, Martin Kampel, and Allan Hanbury, editors, *CAIP 2007: Proceedings of the 12th International Conference on Computer Analysis of Images and Patterns*, number 4673 in *Lecture Notes in Computer Science*, pages 686–693, Berlin, Germany, August 2007. IAPR, Springer.
- [81] Michal Perďoch, Jiří Matas, and Štěpán Obdržálek. Stable affine frames on isophotes. In Dimitris Metaxas, Baba Vemuri, Amnon Shashua, and Harry Shum, editors, *ICCV 2007: Proceedings of Eleventh IEEE International Conference on Computer Vision*, page 8, Los Alamitos, USA, October 2007. IEEE Computer Society, IEEE Computer Society Press. CDROM.
- [82] Jiří Matas, Karel Zimmermann, Tomáš Svoboda, and Adrian Hilton. Learning efficient linear predictors for motion estimation. In Subhashis Banerjee Rangachar Kasturi, editor, *Proceedings of 5th*

- Indian Conference on Computer Vision, Graphics and Image Processing*, LNCS4338, pages 445–456, Berlin, Germany, December 2006. Thiagarajar College of Engineering, Springer-Verlag.
- [83] George Kamberov, Gerda Kamberova, Ondřej Chum, Štěpán Obdržálek, Daniel Martinec, Jana Kostková, Tomáš Pajdla, Jiří Matas, and Radim Šára. 3d geometry from uncalibrated images. In G. Bebis et al., editor, *ISVC '06: Proceedings 2nd International Symposium on Visual Computing*, number 4292 in Lecture Notes in Computer Science, pages 802–813, Berlin, Germany, November 2006. Springer-Verlag.
- [84] Karel Zimmermann, Tomáš Svoboda, and Jiří Matas. Multiview 3D tracking with an incrementally constructed 3D model. In *Third International Symposium on 3D Data Processing, Visualization and Transmission (3DPVT)*, page 9, Piscataway, USA, June 2006. University of North Carolina, IEEE Computer Society. CD-ROM.
- [85] Michal Perdoch, Jiří Matas, and Ondřej Chum. Epipolar geometry from two correspondences. In Bob Werner, editor, *ICPR 2006: Proceedings of the 18th International Conference on Pattern Recognition*, volume 4, pages 215–220, Los Alamitos, USA, August 2006. IEEE Computer Society.
- [86] Štěpán Obdržálek and Jiří Matas. *Toward Category-Level Object Recognition*, chapter 2, pages 85–108. Springer-Verlag, Berlin Heidelberg, Germany, 2006.
- [87] Ondřej Chum and Jiří Matas. Geometric hashing with local affine frames. In Andrew Fitzgibbon, Camillo Taylor, and Yan LeCun, editors, *Proc. of Conference on Computer Vision and Pattern Recognition (CVPR)*, volume 1, pages 879–884, Los Alamitos, USA, June 2006. IEEE Computer Society.
- [88] Pavel Krsek and Jiří Matas. Počítačová podpora detekce "zajímavých" obrázků. In *Nové technologie v radiokomunikacích*, page 8, Brno, Czech Republic, January 2006. Univerzita Obrany, Univerzita Obrany. CD-ROM.
- [89] Tomáš Pajdla and Jiří Matas. Editors of Special Issue: ECCV 2004. *International Journal of Computer Vision*, Volume 67, Number 2, April 2006. ISSN 0920-5691.
- [90] K Mikolajczyk, T Tuytelaars, C Schmid, A Zisserman, J Matas, F Schaffalitzky, T Kadir, and L van Gool. A comparison of affine region detectors. *International Journal of Computer Vision*, 65(7):43 – 72, November 2005.
- [91] Jiří Matas and Ondřej Chum. Randomized ransac with sequential probability ratio test. In Songde Ma and Heung-Yeung Shum, editors, *Proc. IEEE International Conference on Computer Vision (ICCV)*, volume II, pages 1727–1732, New York, USA, October 2005. IEEE Computer Society Press.
- [92] Štěpán Obdržálek and Jiří Matas. Sub-linear indexing for large scale object recognition. In WF Clocksin, AW Fitzgibbon, and PHS Torr, editors, *Proceedings of the British Machine Vision Conference*, volume 1, pages 1–10, London, UK, September 2005. BMVA.
- [93] Jiří Matas and Karel Zimmermann. Unconstrained licence plate detection. In Reinhard Pffiegl, editor, *8th International IEEE Conference on Intelligent Transportation Systems*, pages 572–577, Heidelberg, Germany, September 2005. IEEE Intelligent Transportation Systems Society.
- [94] Jiří Matas, Ondřej Chum, Jan Vodolan, and Miroslav Košek. Effective use of pattern recognition method for composition of structure microphotographs. In Ivan Frolo, editor, *Measurement 2005 - 5th International Conference on Measurement*, pages 85–89, Bratislava, Slovakia, May 2005. Institute of Measurement Science.

- [95] Ondřej Chum and Jiří Matas. Matching with PROSAC - progressive sample consensus. In Cordelia Schmid, Stefano Soatto, and Carlo Tomasi, editors, *Proc. of Conference on Computer Vision and Pattern Recognition (CVPR)*, volume 1, pages 220–226, Los Alamitos, California, USA, June 2005. IEEE Computer Society.
- [96] Ondřej Chum, Tomáš Werner, and Jiří Matas. Two-view geometry estimation unaffected by a dominant plane. In Cordelia Schmid, Stefano Soatto, and Carlo Tomasi, editors, *Proc. of Conference on Computer Vision and Pattern Recognition (CVPR)*, volume 1, pages 772–780, Los Alamitos, California, USA, June 2005. IEEE Computer Society.
- [97] Jan Šochman and Jiří Matas. Waldboost - learning for time constrained sequential detection. In Cordelia Schmid, Stefano Soatto, and Carlo Tomasi, editors, *Proc. of Conference on Computer Vision and Pattern Recognition (CVPR)*, volume 2, pages 150–157, Los Alamitos, California, USA, June 2005. IEEE Computer Society.
- [98] Jiri Matas and Karel Zimmermann. A new class of learnable detectors for categorisation. In Heikki Kalviainen, Jussi Parkkinen, and Arto Kaarna, editors, *SCIA '05: Proceedings of the 14th Scandinavian Conference on Image Analysis*, volume 1 of *LNCS*, pages 541–550, Berlin Heidelberg, Germany, June 2005. Springer-Verlag.
- [99] J. Miteran, J. Matas, E. Bourennane, M. Paindavoine, and J. Dubois. Hardware implementation of a discrete AdaBoost Based decision rule. *Journal on Applied Signal Processing*, 2005(7):1035–1046, May 2005.
- [100] Miroslav Hamouz, Josef Kittler, JK Kamarainen, P Paalanen, Heikki Kalviainen, and Jiří Matas. Feature-based affine-invariant localization of faces. *I.E.E.E. Transactions on Pattern Analysis and Machine Intelligence*, 27(9):1490–1495, September 2005.
- [101] Jiří Matas and Ondřej Chum. Optimal randomised RANSAC. In Allan Hanbury and Horst Bischof, editors, *Proceedings of the Computer Vision Winter Workshop 2005 (CVWW'05)*, pages 215–223, Vienna, Austria, February 2005. PRIP TU Wien.
- [102] Štěpán Obdržálek and Jiří Matas. On the stability of local affine frames for the correspondence problem. In Allan Hanbury and Horst Bischof, editors, *Proceedings of the Computer Vision Winter Workshop 2005 (CVWW'05)*, pages 3–12, Vienna, Austria, February 2005. PRIP TU Wien.
- [103] Tomáš Pajdla and Jiří Matas, editors. *Computer Vision - ECCV 2004: Proceedings of the 8th European Conference on Computer Vision*, volume 1/2/3/4 of *Lecture Notes in Computer Science*, Heidelberg, May 2004. Czech Technical University Prague, Prague, Czech Republic, Springer-Verlag.
- [104] Ondřej Chum, Tomáš Werner, and Jiří Matas. Epipolar geometry estimation via RANSAC benefits from the oriented epipolar constraint. In Mark Nixon Josef Kittler, Maria Petrou, editor, *Proceedings of ICPR 2004 17th International Conference on Pattern Recognition*, volume 1, pages 112–115, 10662 Los Vaqueros Circle, P.O.Box 3014, CA 90720-1314, Los Alamitos, USA, August 2004. IEEE, IEEE Computer Society.
- [105] Ondřej Chum, Jiří Matas, and Štěpán Obdržálek. Enhancing RANSAC by generalized model optimization. In Ki-Sang Hong and Zhengyou Zhang, editors, *Proc. of the Asian Conference on Computer Vision (ACCV)*, volume 2, pages 812–817, Seoul, Korea South, January 2004. Asian Federation of Computer Vision Societies.

- [106] Hugo Cornelius, Radim Šára, Daniel Martinec, Tomáš Pajdla, Ondřej Chum, and Jiří Matas. Towards complete free-form reconstruction of complex 3D scenes from an unordered set of uncalibrated images. In D. Comaniciu, R. Mester, and K. Kanatani, editors, *Proc ECCV Workshop Statistical Methods in Video Processing*, volume LNCS 3247, pages 1–12, Heidelberg, Germany, May 2004. Springer-Verlag.
- [107] Jiří Matas, Ondřej Chum, Martin Urban, and Tomáš Pajdla. Robust wide-baseline stereo from maximally stable extremal regions. *Image and Vision Computing*, 22(10):761–767, September 2004.
- [108] Jiří Matas and Ondřej Chum. Randomized RANSAC with $T_{d,d}$ test. *Image and Vision Computing*, 22(10):837–842, September 2004.
- [109] Jan Šochman and Jiří Matas. WaldBoost – learning for time constrained sequential detection. Research Report CTU–CMP–2004–15, Center for Machine Perception, K13133 FEE Czech Technical University, Prague, Czech Republic, October 2004.
- [110] Jiří Matas and Štěpán Obdržálek. Object recognition methods based on transformation covariant features. In *XII. European Signal Processing Conference EUSIPCO - 2004*, pages 1333 – 1336, Vienna, Austria, Sept 2004. TU Wien.
- [111] Johel Miteran, Jiri Matas, Julian Dubois, and Elbey Bourennane. Boosting : From data to hardware using automatic implementation tool. In *XII. European Signal Processing Conference EUSIPCO - 2004*, pages 1721 – 1727, Vienna, Austria, Sept 2004. TU Wien.
- [112] Johel Miteran, Jiri Matas, Julian Dubois, and Elbey Bourennane. Automatic fpga based implementation of a classification tree. In *IEEE SCS: Proceedings of the 1st International Conference on "Signaux, Circuits et Systemes"*, pages 188–192, 10662 Los Vaqueros Circle, P.O.Box 3014, CA 90720-1314, Los Alamitos, USA, March 2004. L’Ecole Nationale d’Ingénieurs de Sfax, France, IEEE Computer Society.
- [113] Ondřej Chum, Tomáš Werner, and Jiří Matas. On exploiting the oriented epipolar constraint in epipolar geometry estimation via RANSAC. Research Report K333-18/04, CTU–CMP–2004–01, Department of Cybernetics, Faculty of Electrical Engineering Czech Technical University, Prague, Czech Republic, January 2004.
- [114] Jan Šochman and Jiří Matas. Adaboost with totally corrective updates for fast face detection. In Deeber Azada, editor, *FGR '04: Proceeding of the Sixth IEEE International Conference on Automatic Face and Gesture Recognition*, pages 445–450, 10662 Los Vaqueros Circle, P.O.Box 3014, Los Alamitos, USA, May 2004. IEEE Computer Society; Korea Information Science Society; Korea Science and Engineering Foundation; Ministry of Information and Communication, Korea; US Air Force Office of Scientific Research; WatchVision, Inc., IEEE Computer Society.
- [115] Jan Šochman and Jiří Matas. Inter-stage feature propagation in cascade building with AdaBoost. In Mark Nixon Josef Kittler, Maria Petrou, editor, *Proceedings of ICPR 2004 17th International Conference on Pattern Recognition*, volume 1, pages 236–239, 10662 Los Vaqueros Circle, P.O.Box 3014, Los Alamitos, USA, August 2004. IEEE, IEEE Computer Society.
- [116] Aleš Fexa, Václav Hlaváč, Michal Jůza, Jiří Matas, Tomáš Svoboda, and Martin Urban. Crowd separation in digital video images. Research Report K333–17/04, CTU–CMP–2004–03, Department of Cybernetics, Faculty of Electrical Engineering Czech Technical University, Prague, Czech Republic, March 2004.

- [117] Josef Kittler, Reza Ghaderi, Terry Wideatt, and Jiří Matas. Face verification via error correcting output codes. *Image and Vision Computing*, 21(13-14):1163–1169, Dec 2003.
- [118] Petr Bílek and Jiří Matas. Face detection from discriminative regions. In *Proceedings of Workshop 2003*, pages 282–283, Prague, Czech Republic, February 2003. Czech Technical University in Prague, CTU Publishing House.
- [119] Ondřej Chum, Jiří Matas, and Štěpán Obdržálek. On enhancing RANSAC by generalized model optimization. Research Report CTU–CMP–2003–15, Center for Machine Perception, K13133 FEE Czech Technical University, Prague, Czech Republic, August 2003.
- [120] Jiří Matas and Miroslav Košek. Effective use of pattern recognition method for composition of structure microphotographs. In Bohuslav Neckář, editor, *STRUTEX 2003 - 10th International Conference on Structure and Structural Mechanics of Textile Fabric*, pages 99–103, Liberec, Czech Republic, December 2003. Technical University Liberec.
- [121] Ondřej Chum, Jiří Matas, and Štěpán Obdržálek. Epipolar geometry from three correspondences. In Ondřej Drbohlav, editor, *Computer Vision — CVWW’03 : Proceedings of the 8th Computer Vision Winter Workshop*, pages 83–88, Prague, Czech Republic, February 2003. Czech Pattern Recognition Society.
- [122] Ondřej Chum, Jiří Matas, and Josef Kittler. Locally optimized ransac. In J. van Leeuwen G. Goos, J. Hartmanis, editor, *DAGM 2003: Proceedings of the 25th DAGM Symposium*, number 2781 in LNCS, pages 236–243, Heidelberger Platz 3, 14197, Berlin, Germany, September 2003. Springer-Verlag.
- [123] Jiří Matas, Pavel Krsek, Martin Urban, Štěpán Obdržálek, and Jiří Nohýl. Geometric and photometric image stabilization for detection of significant events in video from a low flying unmanned aerial vehicles. Research Report K333–16/03, CTU–CMP–2003–11, Department of Cybernetics, Faculty of Electrical Engineering Czech Technical University, Prague, Czech Republic, June 2003.
- [124] Jiří Matas and Štěpán Obdržálek. Obecné systémy rozpoznávání objektů ve snímcích a videosekvencích. *Softvarové noviny*, XIV(6):84–86, June 2003.
- [125] Jiří Matas, Petr Bílek, and Ondřej Chum. Rotational invariants for wide-baseline stereo. International Research Report MS03-146, Center for Machine Perception, K333 FEE Czech Technical University, Prague, Czech Republic, March 2003.
- [126] Jiří Matas. Cross-verification results of advanced face recognition descriptor. Research Report ISO-IEC-JTC1-SC29WG11-MPEG-9179, Department of Cybernetics, Faculty of Electrical Engineering Czech Technical University, Prague, Czech Republic, October 2002.
- [127] Jan Šochman and Jiří Matas. AdaBoost and face detection. Research Report CTU–CMP–2003–06, Center for Machine Perception, K333 FEE Czech Technical University, Prague, Czech Republic, February 2003.
- [128] Michael Zillich and Jiří Matas. Ellipse detection using efficient grouping of arc segments. In Csaba Beleznai and Thomas Schlogl, editors, *OAGM 2003: Vision in a Dynamic World: Proceedings of the 27th Workshop of the Austrian Association for Pattern Recognition*, pages 143–148, Wien, Austria, June 2003. Österreichische Computer Gesellschaft.

- [129] Pavel Krsek, Jiří Matas, Martin Urban, and Štěpán Obdržálek. Úlohy zpracování obrazu z bezpilotní ho letounu: analýza, experimenty a prototypy programu. Research Report K333–14/02, CTU–CMP–2002–20, Department of Cybernetics, Faculty of Electrical Engineering Czech Technical University, Prague, Czech Republic, November 2002.
- [130] E. Bailly-Bailliere, S. Bengio, F. Bimbot, M. Hamouz, J. Kittler, J. Mariethoz, J. Matas, K. Messer, V. Popovici, F. Poree, B. Ruiz, and J.P. Thiran. The banca database and evaluation protocol. In Josef Kittler and Mark S. Nixon, editors, *Audio- and Video-Based Biometric Person Authentication: Proceedings of the 4th International Conference, AVBPA 2003*, volume 2688 of *Lecture Notes in Computer Science*, pages 625–638, Berlin, Germany, Jun 2003. Springer-Verlag.
- [131] Štěpán Obdržálek and Jiří Matas. Image retrieval using local compact dct-based representation. In Bernd Michaelis and Gerald Krell, editors, *DAGM 2003: Proceedings of the 25th DAGM Symposium*, volume 1 of *LNCS*, pages 490–497, Berlin, Germany, 9 2003. Springer-Verlag.
- [132] Štěpán Obdržálek, Jiří Matas, and Ondřej Chum. On the interaction between object recognition and colour constancy. In *CPMCV '03: Proceedings of the IEEE International Workshop on Color and Photometric Methods in Computer Vision*, 10662 Los Vaqueros Circle, P.O.Box 3014, CA 90720-1314, Los Alamitos, USA, 10 2003. IEEE Computer Society.
- [133] Jiří Matas, D. Koubaroulis, and J. Kittler. The multimodal neighborhood signature for modeling object color appearance and applications in object recognition and image retrieval. *Computer Vision and Image Understanding*, 88(1):1–23, October 2002.
- [134] Jiří Matas and Petr Bílek. Cross verification results of the face recognition descriptor (VCE–1). Research Report ISO-IEC-JTC1-SC29WG11-MPEG-9062, Department of Cybernetics, Faculty of Electrical Engineering Czech Technical University, Prague, Czech Republic, October 2002.
- [135] V. Zdimal, D. Brus, and J. Matas. Homogeneous nucleation rates in supersaturated vapor of n-propanol: Raw results. In Chuen-Jinn Tsai, editor, *Sixth International Aerosol Conference*, pages 1–2, Taipei, Taiwan, September 2002. Chinese Association for Aerosol Research in Taiwan (CAAR).
- [136] M. Hamouz, J. Kittler, J. Matas, and P. Bílek. Face detection by learned affine correspondences. In G. Goos, J. Hartmanis, and J. van Leeuwen, editors, *Proceedings of Joint IAPR International Workshops SSPR02 and SPR02*, pages 566–575. Springer-Verlag Berlin Heidelberg New Yourk, August 2002.
- [137] Jiří Matas and Štěpán Obdržálek. Learning parameters of a recognition system based on local affine frames. In Luc van Gool and Bernd Schiele, editors, *Proceedings of the Workshop on Cognitive Vision*, pages 1–8, Zurich, Switzerland, September 2002. ETH Zurich.
- [138] Dmitry Chetverikov, Zoltan Megyesi, Zsolt Janko, and Jiří Matas. Using periodic texture as a tool for wide-baseline stereo. In Franz Leberl and Friedrich Fraundorfer, editors, *Vision with Non-Traditional Sensors, 26th Workshop of the Austiran Association for Pattern Recognition (OAGm-AAPR)*, pages 37–44, Wien, Austria, September 2002. Osterreichische Computer Gesellschaft.
- [139] Ondřej Chum and Jiří Matas. Randomized ransac with td,d test. In Paul L. Rosin and David Marshall, editors, *Proceedings of the British Machine Vision Conference*, volume 2, pages 448–457, London, UK, September 2002. BMVA.
- [140] Jiří Matas, Ondřej Chum, Urban Martin, and Tomáš Pajdla. Robust wide baseline stereo from maximally stable extremal regions. In Paul L. Rosin and David Marshall, editors, *Proceedings of the British Machine Vision Conference*, volume 1, pages 384–393, London, UK, September 2002. BMVA.

- [141] Štěpán Obdržálek and Jiří Matas. Object recognition using local affine frames on distinguished regions. In Paul L. Rosin and David Marshall, editors, *Proceedings of the British Machine Vision Conference*, volume 1, pages 113–122, London, UK, September 2002. BMVA.
- [142] Vojtěch Franc and Jiří Matas. An extension of the component-based lda descriptor by the generalized discriminant analysis. Research Report ISO-IEC-JTC1-SC29WG11-MPEG-8727, ISO/IEC JTC 1/SC 29/WG 11 Moving Picture Experts Group, Washington, USA, October 2002.
- [143] D Koubaroulis, Jiří Matas, and Josef Kittler. Colour-based object recognition for video annotation. In R. Kasturi, D. Laurendeau, and Suen C., editors, *16th International Conference on Pattern Recognition*, volume 2, pages 1069–1072, Los Alamitos, CA 90720-1314, August 2002. IEEE Computer Society.
- [144] Jiří Matas, Štěpán Obdržálek, and Ondřej Chum. Local affine frames for wide-baseline stereo. In R. Kasturi, D. Laurendeau, and Suen C., editors, *16th International Conference on Pattern Recognition*, volume 4, pages 363–366, Los Alamitos, CA 90720-1314, August 2002. IEEE Computer Society.
- [145] Štěpán Obdržálek and Jiří Matas. Local affine frames for image retrieval. In Michael S. Lew, Nicu Sebe, and John P. Eakins, editors, *CIVR'02: Proceedings of International Conference The Challenge of Image and Video Retrieval*, pages 318–327, Berlin, Germany, July 2002. Springer-Verlag.
- [146] Dmitry Chetverikov and Jiří Matas. Periodic textures as distinguished regions for wide-baseline stereo correspondance. In Mike Chantler, editor, *TEXTURE 2002 The 2nd International Workshop on Texture Analysis and Synthesis*, pages 25–30, Edinburgh, Scotland, June 2002. Heriot-Watt University.
- [147] K. Jonsson, J. Kittler, Y. P. Li, and J. Matas. Support vector machines for face authentication. *Image and Vision Computing*, 20(5-6):369–375, March 2002.
- [148] V. Zdimal, D. Brus, and J. Matas. Homogeneous nucleation rates of n-propanol in static diffusion chamber: First results. In J Smolik and K. Hameri, editors, *Czech-Finnish Aerosol Symposium*, pages 175–180, Helsinki, Finland, May 2002. Aerosolitutkimusseura ry, Finland,.
- [149] S. Bengio, F. Bimbot, J. Mariéthoz, V. Popovici, F. Porée, E. Bailly-Bailliére, J. Matas, and B. Ruiz. Experimental protocol on the BANCA database. Technical Report IDIAP-RR 02-05, IDIAP (Dalle Molle Institute for Perceptual Artificial Intelligence), Martigny, Switzerland, March 2002.
- [150] D Koubaroulis, Jiří Matas, and Josef Kittler. Evaluating colour-based object recognition algorithms on the soil-47 database. In D Suter and A Bab-Hadiashar, editors, *Fifth Asian Conference on Computer Vision*, pages 840–845, Victoria, Australia, January 2002. Asian Federetion of Computer Vision Societies.
- [151] Jiří Matas, Petr Bílek, Miroslav Hamouz, and Josef Kittler. Discriminative regions fro human face detection. In D Suter and A Bab-Hadiashar, editors, *Fifth Asian Conference on Computer Vision*, pages 604–609, Victoria, Australia, January 2002. Asian Federetion of Computer Vision Societies.
- [152] Jiří Matas, Petr Bílek, and Ondřej Chum. Rotational invariants for wide-baseline stereo. In H. Wildenauer and W. Kropatsch, editors, *Proceedings of the CVWW'02*, pages 296–305, Wien, Austria, February 2002. PRIP.
- [153] Jiří Matas and Ondřej Chum. Randomized ransac. In H. Wildenauer and W. Kropatsch, editors, *Proceedings of the CVWW'02*, pages 49–58, Wien, Austria, February 2002. PRIP.

- [154] Josef Kittler, Reza Ghaderi, Terry Windeatt, and Jiří Matas. Face verification using error correcting output codes. In A. Jacobs and T. Baldwin, editors, *Proceedings of the CVPR'01 conference*, volume 1, pages 755–760, Los Alamitos, USA, December 2001. IEEE Computer Society.
- [155] Jiří Matas, Pavel Mrázek, Radim Šára, Vladimír Smutný, Vít Zýka, Ondřej Drbohlav, and Václav Hlaváč. Zpracování obrazu z bezpilotního letounu sojka. Research Report CTU–CMP–2001–35, Center for Machine Perception, K333 FEE Czech Technical University, Prague, Czech Republic, December 2001.
- [156] Jiří Matas and Ondřej Chum. Randomized ransac. Research Report CTU–CMP–2001–34, Center for Machine Perception, K333 FEE Czech Technical University, Prague, Czech Republic, December 2001.
- [157] Johel Miteran, Sophie Kohler, Pierre Geveaux, Patrick Gorria, and Jiří Matas. Discontinuity detection on industrial parts : real-time image segmentation using parzen’s kernel. *Materials Evaluation*, 60(3):430 – 436, March 2002.
- [158] Jiří Matas, Ondřej Chum, Urban Martin, and Tomáš Pajdla. Distinguished regions for wide-baseline stereo. Research Report CTU–CMP–2001–33, Center for Machine Perception, K333 FEE Czech Technical University, Prague, Czech Republic, November 2001.
- [159] Vojtěch Franc and Jiří Matas. Face verification experiments with SMO on Samsung data. Research Report CTU–CMP–2001–31, Center for Machine Perception, K333 FEE Czech Technical University, Prague, Czech Republic, October 2001.
- [160] A. Kostin and J. Matas. Face verification experiments with SVM on the Samsung dataset. Research Report CTU–CMP–2001–26, Center for Machine Perception, K333 FEE Czech Technical University, Prague, Czech Republic, September 2001.
- [161] J Kittler, R Ghaderi, T Windeatt, and J Matas. Face verification via ecoc. In T Cootes and C Taylor, editors, *British Machine Vision Conference 2001*, pages 593–602, London, UK, September 2001. British Machine Vision Association.
- [162] Petr Bílek and Jiří Matas. Illumination independent object recognition: A survey. Research Report CTU–CMP–2001–30, Center for Machine Perception, K333 FEE Czech Technical University, Prague, Czech Republic, October 2001.
- [163] P. Bílek, J. Matas, M. Hamouz, and J. Kittler. Detection of human faces from discriminative regions. Technical Report VSSP–TR–2/2001, CVSSP, University of Surrey, Guildford, GU2 5XH, UK, August 2001.
- [164] C Galambos, J. Kittler, and J. Matas. Gradient based progressive probabilistic hough transform. *IEE Proceedings - Vision Image and Signal Processing*, 148(15):158–165, June 2001.
- [165] J Kittler, R Ghaderi, T Windeatt, and J Matas. Face identification and verification via ecoc. In J Bigun and F Smeraldi, editors, *Audio and Video-based Biometric Person Authentication*, LNCS 2091, pages 1–13, Berlin, Germany, June 2001. Springer.
- [166] Jiří Matas and Lin Luo. Face verification experiments on the samsung dataset. Research Report CAK–340–03–1–2001–03, CTU–CMP–2001–18, Department of Cybernetics, Faculty of Electrical Engineering Czech Technical University, Prague, Czech Republic, June 2001.

- [167] A Soh, J. Kittler, and J. Matas. Empirical evaluation of a calibration chart detector. *Machine Vision and Application*, 12(6):305–312, June 2001.
- [168] J Buriánek, J Matas, and J Kittler. Affine invariant object recognition without a 3d model. In *Proceedings of Workshop 2001*, CTU Reports, pages 194–195, Prague, Czech Republic, Feb 2001. Czech Technical University.
- [169] J Matas, M Urban, and T Pajdla. Unifying view for wide-baseline stereo. In B Likar, editor, *Proc. Computer Vision Winter Workshop*, pages 214–222, Ljubljana, Sloveni, February 2001. Slovenian Pattern Recognition Society.
- [170] C. Iordanoglou, K. Jonsson, Kittler J., and J. Matas. Wearable face recognition aid. In unknown, editor, *2000 IEEE International Conference on Acoustics, Speech, and Signal Processing*, page unknown, June 2000.
- [171] D. Koubaroulis, J. Matas, and J. Kittler. Illumination invariant object recognition using the mns method. In M. Gabbouj and P. Kuosmanen, editors, *Proceedings of the 10th European Signal Processing Conference*, pages 2173–2176, Tampere, Finland, September 2000. Tampere University of Technology.
- [172] J Kittler, Y.P. Li, , and J. Matas. On matching scores of LDA-based face verification. In M. Mirmehdi and B. Thomas, editors, *Proc British Machine Vision Conference BMVC2000*, volume 1, pages 42–51, London, UK, September 2000. University of Bristol, British Machine Vision Association.
- [173] J. Matas, J. Burianek, and J. Kittler. Object recognition using the invariant pixel-set signature. In M. Mirmehdi and B. Thomas, editors, *Proc British Machine Vision Conference BMVC2000*, volume 2, pages 606–615, London, UK, September 2000. University of Bristol, British Machine Vision Association.
- [174] J. Matas, M. Hamouz, K. Jonsson, J. Kittler, Y. Li, C. Kotroupolous, A. Tefas, I. Pitas, T. Tan, H. Yan, F. Smeraldi, J. Bigun, N. Capdevielle, W. Gerstner, S. Ben-Yacoub, Y. Abduljaoued, and E. Majoraz. Comparison of face verification results on the XM2VTS database. In A Sanfeliu, J J Villanueva, M Vanrell, R Alqueraz, J Crowley, and Y Shirai, editors, *Proceedings of the 15th ICPR*, volume 4, pages 858–863, Los Alamitos, USA, September 2000. IEEE Computer Soc Press.
- [175] C. Galambos, J. Matas, and J. Kittler. Using gradient information to enhance the Progressive Probabilistic Hough Transform. In A Sanfeliu, J J Villanueva, M Vanrell, R Alqueraz, T Huang, and J Serra, editors, *Proceedings of the 15th ICPR*, volume 3, pages 564–567, Los Alamitos, USA, September 2000. IEEE Computer Soc Press.
- [176] D. Koubaroulis, J. Matas, and J. Kittler. The multimodal signature method: An efficiency and sensitivity study. In A Sanfeliu, J J Villanueva, M Vanrell, R Alqueraz, T Huang, and J Serra, editors, *Proceedings of the 15th ICPR*, volume 3, pages 379–382, Los Alamitos, USA, September 2000. IEEE Computer Soc Press.
- [177] V. Zdimal, J. Smolik, Hopke P.K., and J. Matas. Improvement of the homogeneous nucleation rate measurements in a static diffusion chamber with use of a ccd camera. In B. N. Hale and M. Kulmala, editors, *CP534, Nucleation and Atmospheric Aerosols 2000: 15th Int. l Conf.*, pages 311–314, NY, U.S.A., August 2000. Dept. of Physics, University of Missouri-Rolla, American Institute of Physics.
- [178] Y.P. Li, J. Kittler, and J. Matas. Face verification using client specific Fisher faces. In J. T. Kent and R. G. Aykroyd, editors, *Proc. Int. conf. on The Statistics of Directions, Shapes and Images*, pages 63–66, Leeds, UK, September 2000. University of Leeds, Dept. of Statistics, University of Leeds, UK.

- [179] J. Matas, D. Koubaroulis, and J. Kittler. Colour image retrieval and object recognition using the multimodal neighbourhood signature. In D. Vernon, editor, *Proceedings of the European Conference on Computer Vision*, LNCS vol. 1842, pages 48–64, Berlin, Germany, June 2000. Springer.
- [180] D. Koubaroulis, J. Matas, and J. Kittler. Colour-based image retrieval from video sequences. In John P Eakins and Peter G B Enser, editors, *Proceedings of the Czech Pattern Recognition Workshop*, pages 1–12, Brighton, UK, May 2000. University of Brighton.
- [181] K. Jonsson, J. Kittler, and J. Matas. Learning support vectors for face identification: Sensitivity to registration errors. In Wen-Hsiang Tsai, editor, *Fourth Asian Conference on Computer Vision*, pages 806–8111, unknown, January 2000. unknown.
- [182] K. Jonsson, J. Matas, Y. P. Li, and J. Kittler. Learning support vectors for face verification and recognition biometrics and benchmarking. In James Crowley, editor, *Fourth IEEE International Conference on Automatic Face and Gesture Recognition 2000*, pages 208–213, Los Alamitos, USA, March 2000. IEEE Computer Soc Press.
- [183] K Messer, J. Matas, J. Kittler, and K. Jonsson. XM2VTS talking face database for research in multimodal biometrics and benchmarking. In none, editor, *Proceedings of the Visual Biometrics Colloquium*, pages 41–46, Stevenage, UK, March 2000. IEE.
- [184] J. Matas, D. Koubaroulis, and J. Kittler. Performance evaluation of the multi-modal neighbourhood signature method for colour object recognition. In Tomáš Svoboda, editor, *Proceedings of the Czech Pattern Recognition Workshop*, pages 27–34, Prague, Czech Republic, February 2000. Czech Society for Pattern Recognition.
- [185] Jiří Matas, Jan Buriánek, and Václav Hlaváč. Appearance-based object recognition. Research Report CTU-CMP-1999-20, Center for Machine Perception, Czech Technical University, Prague, Czech Republic, November 1999.
- [186] D. Koubaroulis, J Matas, and J Kittler. Mns: A novel method for colour based object recognition and image retrieval. Technical Report VSSP-TR-6/99, University of Surrey, 12 1999.
- [187] J. Matas, C. Galambos, and J. Kittler. Robust detection of lines using progressive probabilistic Hough Transform. Technical Report VSSP-TR-2/99, University of Surrey, Guildford, UK, October 1999. available at <ftp://ftp.ee.surrey.ac.uk/pub/vision/papers/matas-TR-VSSP-2-99.ps.Z>.
- [188] G Richard, Y Menguy, I Guis, N Suaudeau, J Boudy, P Lockwood, C Fernandez, F Fernandez, C Kotropoulos, A Tefas, I Pitas, A Heimgartner, P Ryser, C Beumier, P Verlinde, S Pigeon, G Matas, J Kittler, J Bigun, Y Abdeljaoued, E Meurville, L Besacier, M Ansoerge, G Maitre, J Luettin, S Benyacoub, B Ruiz, K Aldama, and J Cortes. Multi modal verification for teleservices and security applications (m2vts). In A Del Bimbo, editor, *6th IEEE International conference on multimedia computing and systems (IEEE ICMCS 99)*, volume 2, pages 1061–1064, Los Alamitos, US, June 1999. IEEE Computer Society.
- [189] J. Matas, C. Galambos, and J. Kittler. Robust detection of lines using progressive probabilistic Hough Transform. *Computer Vision and Image Understanding*, 78(1):119–137, April 2000.
- [190] K. Jonsson, J. Kittler, Y.P. Li, and J. Matas. Support vector machines for face authentication. In Tony Pridmore and Dave Elliman, editors, *Proc British Machine Vision Conference BMVC99*, pages 543–552, London, UK, September 1999. University of Nottingham, British Machine Vision Association.

- [191] Y. Li, J. Kittler, and J. Matas. Effective implementation of Linear Discriminant Analysis for face recognition and verification. In A. Leonardis and F. Solina, editors, *8th International Conference on Computer Analysis and Patterns, Ljubljana, Slovenia, September 1-3 1999*, Berlin, Germany, September 1999. Springer Verlag.
- [192] C. Galambos, J. Matas, and J. Kittler. Progressive probabilistic Hough Transform for line detection. In *Computer Vision and Pattern Recognition*, pages 554–560, Los Alamitos, California, June 1999. IEEE Computer Society.
- [193] S. Ben-Yacoub, J. Luetttin, K. Jonsson, J. Matas, and J. Kittler. Audio-visual person verification. In *Computer Vision and Pattern Recognition*, pages 580–585, Los Alamitos, California, June 1999. IEEE Computer Society.
- [194] J. Matas, K. Jonsson, and J. Kittler. Fast face localisation and verification. *Image and Vision Computing*, 17(8):578–581, June 1999.
- [195] K. Jonsson, J. Matas, and J. Kittler. Learning salient features for real-time face verification. In R. Chellapa, editor, *Second International Conference on Audio and Video-based Biometric Person Authentication*, pages 60–66, Washington, USA, March 1999. University of Maryland.
- [196] K. Messer, J. Matas, J. Kittler, J. Luetttin, and G. Maitre. XM2VTSDB: The extended M2VTS database. In R. Chellapa, editor, *Second International Conference on Audio and Video-based Biometric Person Authentication*, pages 72–77, Washington, USA, March 1999. University of Maryland.
- [197] R. Young, J. Matas, and J. Kittler. On camera calibration for scene model acquisition and maintenance using an active vision system. In H I Christensen, editor, *Proc. 1st Intern. Conference on Computer Vision Systems*, number 1542 in Lecture Notes, pages 509–521, Berlin, January 1999. Springer.
- [198] V. Hlavac and J. Matas. Center for machine perception activity report 1998. Technical Report K335-1998-175, FEE CTU, FEL ČVUT, Karlovo náměstí 13, Praha, Czech Republic, April 1999.
- [199] Jiří Matas, Jan Buriánek, and Václav Hlaváč. Review of wavelet applicatins with focus on image processing. Research Report K335-CMP-98-174, Center for Machine Perception, Czech Technical University, Prague, Czech Republic, December 1998.
- [200] Rupert Young, Jiri Matas, and Josef Kittler. Active recovery of the intrinsic parameters of a camera. In Yeng Chai Soh, editor, *International Conference on Control, Automation Robotics and Computer Vision*, pages 1392–1396, Nanyang Avenue, Singapore, December 1998. Nanyang Technological University.
- [201] K. Jonsson, J. Matas, and J. Kittler. Saliency-based robust correlation for real-time face registration and verification. In M. S. Nixon, editor, *Proc British Machine Vision Conference BMVC98*, pages 44–53, London, UK, September 1998. University of Southampton, British Machine Vision Association.
- [202] J. Matas, Ch Galambos, and J. Kittler. Progressive probabilistic Hough Transform. In M. S. Nixon, editor, *Proc British Machine Vision Conference BMVC98*, volume 1, pages 256–265, London, UK, September 1998. University of Southampton, British Machine Vision Association.
- [203] M. Pandit, J. Kittler, and J. Matas. Selection of speaker independent features for a speaker verification system. In A.K. Jain, S. Venkatesh, and B. C. Lowell, editors, *Proceedings of the 14th ICPR*, pages 1034–1036, Los Alamitos, California, August 1998. IEEE Computer Society.

- [204] M. Reiter and J. Matas. Object detection with varying number of eigenspace projections. In A.K. Jain, S. Venkatesh, and B. C. Lowell, editors, *Proceedings of the 14th ICPR*, pages 759–761, Los Alamitos, California, August 1998. IEEE Computer Society.
- [205] L. H. Soh, J. Matas, and J. Kittler. Recognition using labelled objects. In A.K. Jain, S. Venkatesh, and B. C. Lowell, editors, *Proceedings of the 14th ICPR*, pages 1336–1338, Los Alamitos, California, August 1998. IEEE Computer Society.
- [206] R. Young, J. Kittler, and J. Matas. Hypothesis selection for scene interpretation using grammatical models of scene evolution. In A.K. Jain, S. Venkatesh, and B. C. Lowell, editors, *14th International Conference on Pattern Recognition (Brisbane, Australia, August 17–20, 1998)*, pages 1718–1720, Los Alamitos, California, August 1998. IEEE Computer Society.
- [207] K. Messer, J. Matas, and J. Kittler. Acquisition of a large database for biometric identity verification. In J. Jan, J. Kozumplík, and Z. Szabó, editors, *BIO SIGNAL 98*, pages 70–72, Technical University Brno, Purkynova 188, 612 00, Brno, Czech Republic, June 1998. Vutium Press.
- [208] L.M. Soh, J. Matas, and J. Kittler. Model acquisition and matching in tagged object recognition. In A Stouraitis S Theodoridis, I Pitas and N Kalouptsidis, editors, *European Signal Processing Conference 1998*, pages 601–604, Aug 1998.
- [209] J. Kittler, M. Hatef, R.P.W Duin, and J. Matas. On combining classifiers. *I.E.E.E. Transactions on Pattern Analysis and Machine Intelligence*, 20(3):226 – 239, March 1998.
- [210] J. Kittler, J. Matas, K. Jonsson, and M. U. Ramos Sánchez. Combining evidence in personal identity verification systems. *Pattern Recognition Letters*, 18:845–852, Sep 1997.
- [211] J. Matas, L.M. Soh, and J. Kittler. Object recognition using a tag. In *4th International Conference on Image Processing, S. Barbara, California, USA*, pages 887–891. , 1997.
- [212] L.M. Soh, J. Matas, and J. Kittler. Robust recognition of calibration charts. In *IEE 6th International Conference on Image Processing and Its Applications*, pages 487–491. BMVA Press, 1997.
- [213] J. Matas, K. Jonsson, and J. Kittler. Fast face localisation and verification. In A. Clark, editor, *British Machine Vision Conference*, pages 152–161, London, UK, 1997. University of Essex, BMVA Press.
- [214] M. U. Ramos Sanchez, J. Matas, and J. Kittler. Lip shape modelling and tracking for security and video coding applications. In J J Villanueva A Sanfeliu and J Vitria, editors, *Proc 7th Nation. Symposium on Pattern Recognition and Image Analysis*, pages 73–78. Vutium Press, 1997.
- [215] J. Matas and J. Kittler. Improved sampling method for RANSAC and RHT. In T. Pajdla, editor, *Czech Pattern Recognition Workshop '97*, pages 97–100. Czech Pattern Recognition Society, February 1997.
- [216] M. U. Ramos Sánchez, J. Matas, and J. Kittler. Statistical chromaticity-based lip tracking with B-splines. In *International Conference on Acoustics, Speech and Signal Processing, (Munich, Germany, April 21-24)*, volume 4, pages 2973–2976, 1997. see also <http://www.ee.surrey.ac.uk/Projects/M2VTS/experiments/lip-tracking/index.html>.
- [217] M. U. Ramos Sánchez, J. Matas, and J. Kittler. Statistical chromaticity models for lip tracking with B-splines. In J. Bigün, Gerard Chollet, and Gunilla Borgefors, editors, *Audio- and Video-based Biometric Person Authentication*, pages 69–76, 1997.

- [218] J. Kittler, Y. P. Li, J. Matas, and M U Ramos Sánchez. Combining evidence in multimodal personal identity recognition systems. In J. Bigün, Gerard Chollet, and Gunilla Borgefors, editors, *Audio- and Video-based Biometric Person Authentication*, pages 327–334, 1997.
- [219] J. Kittler, Y. P. Li, J. Matas, and M. U. Ramos Sánchez. Lip-shape dependent face verification. In J. Bigün, Gerard Chollet, and Gunilla Borgefors, editors, *Audio- and Video-based Biometric Person Authentication*, pages 61–68, 1997.
- [220] H.I. Christensen, J. Matas, and J. Kittler. Using grammars for scene interpretation. In *IEEE International Conference on Image Processing, (16-19 September, Lausanne, Switzerland)*, pages 793–796, 1996.
- [221] A. Griffin, J. Kittler, T. Windeatt, and G. Matas. Techniques for the interpretation of thermal paint coated samples. In *13th International Conference on Pattern Recognition, (25-29 August, Vienna, Austria)*, pages 959–963, 1996.
- [222] J. Matas, R. Marik, and J. V. Kittler. Colour-based object recognition under spectrally non-uniform illumination. *Image and Vision Computing*, 13:663–669, 9 1995.
- [223] J. Matas. *Colour-based Object Recognition*. PhD thesis, University of Surrey, 1995.
- [224] J. Kittler, J. Matas, M. Bober, and L. Nguyen. Image interpretation: Exploiting multiple cues. In *International Conference on Image Processing and Applications, Edinburgh, July 3-6*, pages 1–5, 1995.
- [225] J. Matas and J. Kittler. Spatial and feature based clustering: Applications in image analysis. In *6th International Conference on Computer Analysis and Patterns , Prague, Czech Republic, September 6-8 1995*, pages 162–173, 1995.
- [226] J. Matas, R. Marik, and J. Kittler. The color adjacency graph representation of multi-coloured objects. Technical report, University of Surrey VSSP-TR-1/95, 1995.
- [227] J. Matas, R. Marik, and J. Kittler. On representation and matching of multi-coloured objects. In *Fifth International Conference on Computer Vision (Cambridge, MA, June 20–23, 1995)*, pages 726–732, 1995.
- [228] P Remagnino, J. Kittler, J. Matas, and J Illingworth. *Camera control for establishing the current and next-look direction in an active vision object recognition system*, chapter VI, pages 403–417. 1995.
- [229] J. Matas and J. Kittler. *Contextual Junction Finder*, chapter II, pages 133–141. 1995.
- [230] J. Matas, Z. Shao, and J. Kittler. Estimation of curvature and tangent direction by median filtered differencing. In C. Braccini, L. DeFloriani, and G. Vernazza, editors, *Image Analysis and Processing, ICIAP'95, San Remo, Italy*, pages 83–88. Springer, 1995.
- [231] P Remagnino, J Illingworth, J. Kittler, and J. Matas. Intentional control of camera look direction and viewpoint in an active vision system. *Image and Vision Computing*, 13:79–88, March 1995.
- [232] J. Matas, J. Kittler, J. Illingworth, L. Nguyen, and H.I. Christensen. Constraining visual expectations using a grammar of scene events. In *Artificial Intelligence and Information-Control System of Robots '94 (Smolenice Castle, Slovakia)*, pages 81–93, 1994.
- [233] J. Matas, R. Marik, and J. Kittler. Illumination invariant colour recognition. In *British Machine Vision Conference*, pages 469–479, 1994.

- [234] D. Yang, J. Kittler, and G. Matas. Recognition of cylindrical objects using occluding boundaries obtained from colour based segmentation. In E. Hancock, editor, *British Machine Vision Conference*, pages 439–440, 1994.
- [235] Sverre H. Huseby, George Matas, and Timothy M. Farnum. CUG393 — LL, GIFSave, and Cordic++. *C Users Journal*, 12(1):88–??, January 1994.
- [236] J. Matas, P Remagnino, J. Kittler, and J Illingworth. Control of scene interpretation. In *Vision as Process*, pages 347–373. Springer-Verlag, 1994.
- [237] J. Matas and J. Kittler. Polyhedral scene structure from junctions. In *The Rosenon Workshop*, 1994.
- [238] R. Marik, J. Matas, and J. Kittler. Colour-based semantic line labelling. In V. Hlavac and T. Pajdla, editors, *Proceedings of the Czech Pattern Recognition Workshop (Temesvar u Pisku, November 4-6, 1993, Czech Republic)*, pages 126–132, 1993.
- [239] J. Matas and J. Kittler. Junction detection using probabilistic relaxation. 11:197–202, May 1993.
- [240] J. Matas, R. Marik, and J. Kittler. Generation, verification and localisation of object hypotheses based on colour. In *British Machine Vision Conference*, pages 539–548, 1993.
- [241] R. Marik, J. Matas, and J. Kittler. Colour-based semantic line labelling. In *ACCV 93: Asian Conference on Computer Vision, Osaka, Japan*, pages 450–453, 1993.
- [242] P Remagnino, G Matas, J. Kittler, and J Illingworth. A scene interpretation module for an active vision system. In David P Casasent, editor, *Proc of SPIE conference on Intelligent Robotics and Computer Vision XII: Active Vision and 3D Methods (Boston)*, volume 2056, pages 8–109. SPIE, September 1993. ISBN 0-8194-1321-6.
- [243] M Bober, P Hoad, J. Matas, P Remagnino, J. Kittler, and J Illingworth. Control of perception in an active vision system: Sensing and interpretation. In *Proceedings of Intelligent Robotics Systems '93 (Zakopane, Poland)*, pages 258–276. IRS'93 Organising Committee, IPPT PAN, 21 Swietokrzyska Str, 00-049 Warsaw, Poland, 1993.
- [244] P.Remagnino, G.Matas, J. Kittler, and J. Illingworth. Control in the bootstrap phase of a computer vision system. In *Proc. of 4th International Conference on Image Processing (Maastricht)*, April 1992.
- [245] P.Remagnino, G.Matas, J. Kittler, and J. Illingworth. On computing the next look camera parameters in active vision. In *Proc. of 10th European Conference on Artificial Intelligence (Vienna)*, August 1992.
- [246] P. Fornland, G. Jones, J. Matas, and J. Kittler. Stereo correspondance from junctions. In *Proceedings of the 8th Scandinavian Conference on Image Analysis (Tromso, Norway)*, pages 449–455, 1993.
- [247] J. Kittler, G. Matas, and H.H.Tan. Automatic thresholding for grey level corner detectors. In *Proceedings of the International Conference on Digital Signal Processing and the International Conference on Computer Applications to Engineering systems, (Cyprus)*, pages 198–203, 1992.
- [248] J. Matas and J. Kittler. Contextual junction finder. In *British Machine Vision Conference*, pages 119–128, 1992.
- [249] A. Etemadi, J-P. Schmidt, G. Matas, J. Illingworth, and J. Kittler. Low-level grouping of straight line segments. In *British Machine Vision Conference*, pages 119–126. Springer, 1991.

- [250] M.Sonka, V.Hlavac, R.Marik, J. Matas, P.Novak, L. Preucil, and J. Woska. Digital image processing applications in industry solved at CTU. In *Proceedings of FAST Int. Symposium System Approach to Automation, (Milan, Italy)*, November 1990.
- [251] J. Matas, P. Novak, L. Preucil, and M. Sonka. System technickeho videni Digites 2C - aplikace (in Czech, the Digites 2C machine vision system - applications). In . Dom SVTS Banska Bystrica, Czechoslovakia, 1989.
- [252] P. Zachar, M. Skvarenina, S. Smutny, and J. Matas. Problematika navadzania manipulatora na udanu polohu pomocou analyzy obrazu sceny (in Slovak, The problem of manipulator control by a machine vision system). In . Dom SVTS Banska Bystrica, Czechoslovakia, 1989.
- [253] L. Preucil and J. Matas. Vizualni polohovani defektoskopicke sondy, (in Czech, Positioning of a defectoscopic ultrasonic testing device using image analysis). Technical report, VUJE Trnava, Czechoslovakia, 1989.
- [254] R. Marik and J. Matas. Membrane method for graph construction. In *Proc. Third International Conference on Automatic Image Processing (Leipzig, GDR)*, 1989.
- [255] M. Sonka, J. Matas, P. Novak, L. Preucil, and V. Hlavac. Programove vybaveni systemu technickeho videni Digites 2C (in Czech, Software for the Digites 2C machine vision system). In . Dom techniky SVTS Kosice, Czechoslovakia, 1988.
- [256] R. Marik and J. Matas. Segmentace metodou narustani oblasti (Region Growing Methods for Image Segmentation, in Czech). In *Proc. Digital Image Processing Conf.*, 1988.
- [257] J. Matas and V. Rauch. Programovy soubor Golias pro vypocty v regulacnich systemech (Golias: A program package for calculations in automatic control, in Czech). In *Proc. Programs for Personal Computers*. CSVTS FEL CVUT, Praha,Czechoslovakia, 1987.
- [258] J. Matas. Statistical evaluation of electrical networks. Technical report, EDP Portugal Coimbra, 1986.