

Publications of Tomáš Svoboda

Tomáš Svoboda

This paper summarizes publications of Tomáš Svoboda within the period 1995–07/2004.

Journal papers

- [1] Tomáš Svoboda, Daniel Martinec, and Tomáš Pajdla. A convenient multi-camera self-calibration for virtual environments. *PRESENCE: Teleoperators and Virtual Environments*, 14(4), August 2005. To appear.
- [2] Markus Gross, Stephan Wuermlin, Martin Naef, Edouard Lamboray, Christian Spagno, Kunz Andreas, Esther Koller-Meier, Tomas Svoboda, Luc Van Gool, Silke Lang, Strehlke Kai, Andrew Vande Moere, and Oliver Staadt. Blue-c: A spatially immersive display and 3D video portal for telepresence. *ACM Transactions on Graphics (Siggraph 2003)*, 22(3):819–827, July 2003.
- [3] Tomáš Svoboda and Tomáš Pajdla. Epipolar geometry for central catadioptric cameras. *International Journal of Computer Vision*, 49(1):23–37, August 2002.

Chapters in Books

- [4] Tomáš Pajdla, Tomáš Svoboda, and Václav Hlaváč. Epipolar geometry of central panoramic cameras. In Ryad Benosman and Sing Bing Kang, editors, *Panoramic Vision : Sensors, Theory, and Applications*, pages 85–114. Springer Verlag, Berlin, Germany, 1 edition, 2001.

Editor of Proceedings

- [5] Peter Sturm, Tomáš Svoboda, and Seth Teller, editors. *Omnivis2004: The fifth Workshop on Omnidirectional Vision, Camera Networks and Non-Classical Cameras*, Prague, Czech Republic, May 2004. Czech Technical University.
- [6] Tomáš Svoboda, editor. *Proceeding of the Czech Pattern Recognition Workshop*, Prague, Czech Republic, February 2000. Czech Society for Pattern Recognition.

Papers in reviewed conferences

- [7] Petr Doubek, Indra Geys, Tomáš Svoboda, and Luc Van Gool. Cinematographic rules applied to a camera network. In Peter Sturm, Tomáš Svoboda, and Seth Teller, editors, *Omnivis2004, The fifth Workshop on Omnidirectional Vision, Camera Networks and Non-Classical Cameras*, pages 17–29, Prague, Czech Republic, May 2004. Czech Technical University.
- [8] Katja Nummiaro, Esther Koller-Meier, Tomáš Svoboda, Daniel Roth, and Luc Van Gool. Color-based object tracking in multi-camera environments. In B. Michaelis and G. Krell, editors, *25th Pattern Recognition Symposium, DAGM'03*, number 2781 in LNCS, pages 591–599. Springer, September 2003.
- [9] Hao Shao, Tomáš Svoboda, Vittorio Ferrari, Tinne Tuytelaars, and Luc Van Gool. Fast indexing for image retrieval based on local appearance with re-ranking. In *IEEE International Conference on Image Processing*, September 2003.
- [10] M. Gross, S. Wuermlin, M. Naef, E. Lamboray, Ch. Spagno, Kunz. A., E. Koller-Meier, T. Svoboda, L. Van Gool, S. Lang, Strehlke K., A. Vande Moere, and O. Staadt. Blue-c: A spatially immersive display and 3D video portal for telepresence. In *Proceedings of ACM SIGGRAPH 2003*, July 2003.
- [11] Hao Shao, Tomáš Svoboda, Tinne Tuytelaars, and Luc Van Gool. Hpat indexing for fast object/scene recognition based on local appearance. In *International Conference on Image and Video Retrieval*, July 2003.

- [12] Petr Doubek, Tomáš Svoboda, and Luc Van Gool. Monkeys — a software architecture for ViRoom — low-cost multicamera system. In James L. Crowley, Justus H. Piater, Markus Vincze, and Lucas Paletta, editors, *3rd International Conference on Computer Vision Systems*, number 2626 in LNCS, pages 386–395. Springer, April 2003.
- [13] Patrick de la Hamette, Paul Lukowicz, Gerhard Tröster, and Tomáš Svoboda. Fingermouse: A wearable hand tracking system. In Peter Ljungstrand and Lars Erik Holmquist, editors, *UBICOMP2002 Adjunct Proceedings*, volume 1, pages 15–16. TeknologTryck, Elektroteknologsektionen Chalmers, Göteborg, September-October 2002.
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- [15] Petr Doubek and Tomáš Svoboda. Reliable 3d reconstruction from a few catadioptric images. In R. Benosman and E.M. Mouaddib, editors, *Proceedings of the IEEE Workshop on Omnidirectional Vision 2002*, pages 71–78, Los Alamitos, CA, June 2002. IEEE Computer Society.
- [16] Petr Doubek and Tomáš Svoboda. What space can be reconstructed from multiple catadioptric images. In Horst Wildenauer and Walter Kropatsch, editors, *Proceedings of the Computer Vision Winter Workshop*, pages 198–207. PRIP TU Vienna, February 2002.
- [17] Tomáš Svoboda and Tomáš Pajdla. Matching in catadioptric images with appropriate windows and outliers removal. In Wladyslaw Skarbek, editor, *Proc. of the 9th International Conference on Computer Analysis of Images and Patterns*, number 2124 in Lecture Notes in Computer Science, pages 733–740, Berlin, Germany, September 2001. Springer.
- [18] Tomáš Svoboda, Tomáš Pajdla, and Václav Hlaváč. Epipolar geometry for panoramic cameras. In Hans Burkhardt and Neumann Bernd, editors, *the fifth European Conference on Computer Vision, Freiburg, Germany*, volume 1406 of *Lecture Notes in Computer Science*, pages 218–232, Berlin, Germany, June 1998. Springer.
- [19] Tomáš Svoboda, Tomáš Pajdla, and Václav Hlaváč. Motion estimation using central panoramic cameras. In Stefan Hahn, editor, *IEEE International Conference on Intelligent Vehicles*, pages 335–340, Stuttgart, Germany, October 1998. Causal Productions.
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- [22] Tomáš Svoboda, Tomáš Pajdla, and Václav Hlaváč. Central panoramic cameras: Design and geometry. In Aleš Leonardis and Franc Solina, editors, *Proceedings of Computer Vision Winter Workshop in Gozd Martuljek, Slovenia*, pages 120–133, Ljubljana, Slovenia, February 1998. IEEE Slovenia Section, IEEE Slovenia Section.
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Master and PhD theses

- [25] Tomáš Svoboda. *Central Panoramic Cameras Design, Geometry, Egomotion*. PhD Thesis, Center for Machine Perception, Czech Technical University, Prague, Czech Republic, April 2000.
- [26] Tomáš Svoboda. Camera self-calibration and motion analysis. Master’s thesis, Czech Technical University, Faculty of Electrical Engineering, Prague, Prague, Czech Republic, May 1995.

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- [27] Tomáš Svoboda, Tomáš Pajdla, and Václav Hlaváč. Central panoramic cameras: Design, epipolar geometry, egomotion. In *Proc. Czech Technical University Workshop '99*, volume 3, page 94, Prague, Czech Republic, 1999. Czech Technical University.
- [28] Tomáš Svoboda, Tomáš Pajdla, and Václav Hlaváč. Epipolar geometry for panoramic cameras. In *Czech Technical University Workshop 98*, pages 177–178. Czech Technical University, February 1998.
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Research Reports

- [34] Tomáš Svoboda. Quick guide to multi-camera self-calibration. Technical Report 263, Computer Vision Lab, Swiss Federal Institute of Technology, Zurich, July 2003. <http://www.vision.ee.ethz.ch/~svoboda/SelfCal>.
- [35] Daniel Roth, Tomáš Svoboda, Esther Koller-Meier, and Luc Van Gool. Human tracking by using multiple cameras. Technical Report 262, Computer Vision Laboratory, Swiss Federal Institute of Technology, March 2003.
- [36] Nico Galoppo von Borries, Tomáš Svoboda, and Stefaan De Roeck. Real-time segmentation of color images — implementation and practical issues in the blue-c project. Technical Report 261, Computer Vision Laboratory, Swiss Federal Institute of Technology, March 2003.
- [37] Tomáš Svoboda. Evaluation, transformation, and parametrization of epipolar conics. Research Report CTU–CMP–2000–11, Center for Machine Perception, Czech Technical University, Prague, Czech Republic, April 2000.
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