

## Publications of Christian Teutsch (August 15, 2010)

### 2010

- [TBS<sup>+</sup>10] C. Teutsch, D. Berndt, J. Schnee, M. Hübner, and N. Bachfischer. Objective evaluation of laser markings for quality control. *Int. Journal of Signal Processing, Image Processing and Pattern Recognition*, 3(2):41–49, June 2010.
- [Teu10] C. Teutsch. *Assistenzroboter in Laboren von Life-Science-Unternehmen*, chapter Kamerasystem zur Objekterkennung und Manipulation, pages 52–62. Fraunhofer Verlag, 2010.

### 2009

- [BT09] D. Berndt and C. Teutsch. Optische in-prozess technologie ermöglicht 100%-ige bauteilprüfung in der gießerei. *Mitteldeutsche Mitteilungen (VDI)*, 18(1):28, 2009.
- [SBB<sup>+</sup>09] J. Schnee, N. Bachfischer, D. Berndt, M. Hübner, and C. Teutsch. Objective quality evaluation of laser markings for assembly control. In D. Slezak, S. Pal, B.-H. Kang, J. Gu, H. Kuroda, and T.-H. Kim, editors, *Int. Conf. on Signal Processing, Image Processing and Pattern Recognition (SIP 2009) (December 10–12, 2009, Jeju Island, Korea)*, volume 61 of *Communications in Computer and Information Science*, pages 17–24. Springer, December 2009.

### 2008

- [EFST08] N. Elkmann, M. Fritzsche, E. Schulenburg, and C. Teutsch. Lisa: ein assistenzroboter für den einsatz in laborumgebungen zur sicheren mensch-roboter-interaktion. In *Proc. 5. Fachtagung Robotik 2008 (Munich, Germany, 11–12 June)*, volume 2012 of *VDI-Berichte*, pages 227–230. VDI Wissensforum GmbH, VDI-Verlag GmbH Düsseldorf, 2008.
- [LTES08] O. Lange, C. Teutsch, M. Erhard, and J. Sander. Mirob: Automatic rapid identification of microorganisms in high through-put. *Industrial Robot: An International Journal*, 35(4):311–315, August 2008.
- [MT08] M. Maasland and C. Teutsch. Kombinierte geometrie- und oberflächenprüfung an 3d-objekten. *QZ Qualität und Zuverlässigkeit*, 53(2):52–55, 2008.
- [TM08] C. Teutsch and M. Maasland. Kombinierte optische Vermessung und Oberflächenprüfung von 3-D-Objekten. In N. Bauer, editor, *Handbuch zu Industriellen Bildverarbeitung – Qualitätssicherung in der Praxis*, chapter Optische 3-D Messtechnik, pages 306–312. Fraunhofer IRB Verlag, Stuttgart, 2nd edition, 2008.

## 2007

- [BMTT07] D. Berndt, R. Mecke, C. Teutsch, and J. Tuemler. Assembly assistance with augmented reality: Mobile measurement and testing technology provides an overview. *IFFOCUS - Interactive Human-Machine*, 2:44–46, 2007.
- [FSE<sup>+</sup>07] M. Fritzsche, E. Schulenburg, N. Elkmann, A. Girstl, S. Stiene, and C. Teutsch. Safe human-robot interaction in a life science environment. In *Proc. IEEE Int. Workshop on Safety, Security, and Rescue Robotics (SSRR 2007) (Rome, Italy, Sep. 27–29, 2007)*, pages 1–6, 2007.
- [SEF<sup>+</sup>07] E. Schulenburg, N. Elkmann, M. Fritzsche, A. Girstl, S. Stiene, and C. Teutsch. Lisa: A robot assistant for life sciences. In *KI 2007: Advances in Artificial Intelligence, 30th Annual German Conf. on AI (Osnabrück, Germany, September 10–13, 2007)*, volume 4667/2007 of LNCS, pages 502–505. Springer Berlin / Heidelberg, 2007.
- [SEFT07] E. Schulenburg, N. Elkmann, M. Fritzsche, and C. Teutsch. A mobile service robot for life science laboratories. In *Proc. 20. Fachgespräch Autonome Mobile Systeme (AMS 2007) (Kaiserslautern, Germany, Oct. 18–19, 2007)*, Informatik aktuell, pages 315–318. Springer Berlin Heidelberg, 2007.
- [TBTP07] C. Teutsch, D. Berndt, E. Trostmann, and B. Preim. Adaptive real-time grid generation from 3d line scans for fast visualization and data evaluation. In *Proc. 11th Int. Conf. Information Visualization*, pages 177–184, Washington, DC, USA, 2007. IEEE Computer Society.
- [Teu07] C. Teutsch. *Model-based Analysis and Evaluation of Point Sets from Optical 3D Laser Scanners*, volume 1 of *Magdeburger Schriften zur Visualisierung*. Shaker Verlag, December 2007.
- [TM07] C. Teutsch and M. Maasland. Kombinierte optische Vermessung und Oberflächenprüfung von 3-D-Objekten. In N. Bauer, editor, *Handbuch zu Industriellen Bildverarbeitung – Qualitätssicherung in der Praxis*, chapter Optische 3-D Messtechnik, pages 306–312. Fraunhofer IRB Verlag, Stuttgart, 1st edition, 2007.

## 2006

- [LETS06] O. Lange, M. Erhard, C. Teutsch, and J. Sander. Roboter sucht nach mikrobien. *Laborpraxis*, 30(9):28–30, 2006.
- [TBSS06] C. Teutsch, D. Berndt, A. Sobotta, and S. Sperling. A flexible photogrammetric stereo vision system for capturing the 3d shape of extruded profiles. In P. S. Huang, editor, *Proc. Two- and Three-Dimensional Methods for Inspection and Metrology IV (Optics East 2006, October 1–4, 2006, Boston, MA, USA)*, volume 6382, page 63820M. SPIE, 2006.
- [TBST06] C. Teutsch, D. Berndt, N. Schmidt, and E. Trostmann. Automated geometry measurement of wheel rims based on optical 3d metrology. In P. S. Huang, editor, *Proc. Two- and Three-Dimensional Methods for Inspection and Metrology IV (Optics East 2006, October 1–4, 2006, Boston, MA, USA)*, volume 6382, page 63820I. SPIE/IS&T, SPIE, 2006.
- [TBTW06] C. Teutsch, D. Berndt, E. Trostmann, and M. Weber. Real-time detection of elliptic shapes for automated object recognition and object tracking. In F. Meriaudeau and K. S. Niel, editors, *Proc. of Machine Vision Applications in Industrial Inspection XIV (Electronic Imaging 2006, January 15–19, 2006, San Jose, California, USA)*, volume 6070 of *SPIE Proceedings Series*, pages 171–179, Bellingham, Washington, january 2006. SPIE/IS&T.
- [TM06] C. Teutsch and M. Maasland. Kombinierte optische Vermessung und Oberflächenprüfung von 3-D-Objekten. *Leitfaden zur Inspektion von Oberflächen mit Bildverarbeitung*, 9(1):28–32, May 2006.

## 2005

- [BFM<sup>+</sup>05] D. Berndt, A. Fix, T. Müller, E. Trostmann, and C. Teutsch. Optical 3-D metrology for aiding the autonomous welding of steel constructions. In *EOS Conf. on Industrial Imaging and Machine Vision (Munich, Germany, 13–15 June, 2005)*, pages 12–16. European Optical Society, 2005.
- [BFTT05] D. Berndt, A. Fix, E. Trostmann, and C. Teutsch. 3-D image processing as the key for a flexible manufacturing cell for the automated welding of large steel structures. In A. Gruen and H. Kahmen, editors, *Proc. of Optical 3-D Measurement Techniques VII (Vienna, Austria, October 3–5, 2005)*, volume 1, pages 317–326, Vienna, 2005. TU Vienna, ETH Zurich.
- [LTES05] O. Lange, C. Teutsch, M. Erhard, and J. Sander. Schnelle automatische identifizierung von bakterien und pilzen. *Bioforum*, 28(11):35–37, november 2005.
- [TBTM05] C. Teutsch, D. Berndt, E. Trostmann, and R. Mecke. A hand-guided flexible laser-scanner for generating photorealistically textured 3D data. In *Proceedings of 3D-NordOst 2005, 7. Anwendungsbezogener Workshop zur Erfassung, Verarbeitung, Modellierung und Auswertung von 3D-Daten*, pages 37–44. Virtual Working Group 3D, 2005.
- [TBTW05] C. Teutsch, D. Berndt, E. Trostmann, and M. Weber. Efficient reconstruction of nurbs surfaces for shape analysis and surface inspection. In A. Gruen and H. Kahmen, editors, *Proc. of Optical 3-D Measurement Techniques VII (Vienna, Austria, October 3–5, 2005)*, volume 2, pages 144–153, Vienna, 2005. TU Vienna, ETH Zurich.
- [TIT<sup>+</sup>05] C. Teutsch, T. Isenberg, E. Trostmann, M. Weber, T. Strothotte, and D. Berndt. Evaluation and correction of laser-scanned point clouds. In J.-A. Beraldin, S. F. El-Hakim, A. Gruen, and J. S. Walton, editors, *Proc. of Videometrics VIII (Electronic Imaging 2005, San Jose, California, USA, 16–20 January, 2005)*, volume 5665, pages 172–183, Bellingham, Washington, January 2005. SPIE/IS&T.

## 2004

- [TBTW04] C. Teutsch, D. Berndt, E. Trostmann, and M. Weber. 3D geometry verification in the automotive industry. In *Proceedings of 3D-NordOst 2004, 7. Anwendungsbezogener Workshop zur Erfassung, Verarbeitung, Modellierung und Auswertung von 3D-Daten*, pages 51–58. Virtual Working Group 3D, 2004.
- [TITW04] C. Teutsch, T. Isenberg, E. Trostmann, and M. Weber. Evaluation and Opimization of Laser Scan Data. In T. Schulze, S. Schlechtweg, and V. Hinz, editors, *Proc. of 15. Conference on Simulation and Visualization (Magdeburg, Germany, 4–5 March, 2004)*, pages 311–322, Erlangen, San Diego, 2004. University of Magdeburg, SCS European Publishing House.

## 2003

- [Teu03] C. Teutsch. Optimierte Rekonstruktion von 3D-Geometrien aus Laserscan-Daten unter Ausnutzung von Information über den Scan-Prozess. Master's thesis, Otto-von-Guericke-University Magdeburg, Germany, Department of Simulation and Graphics, september 2003.