Dr.-Ing.
Dirk Wollherr

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Born July 24, 1975

Career

2005-present	Senior researcher and lecturer, Director of the robotics group / Institute of Automatic Control Engineering Technische Universität München, Munich, Germany
2004-2005	Research assistant / Institute of Automatic Control Engineering, Technische Universität München, Munich, Germany
2004	Japanese Society for the Promotion of Science (JSPS) Fellow / Yoshihiko-Nakamura-Lab, Department of Mechano-Informatics, The University of Tokyo, Tokyo, Japan
2001-2004	Research assistant / Control Systems Group, Technical University Berlin, Berlin, Germany
2000	Research assistant / Institute of Automatic Control Engineering, Technische Universität Müchen, Munich, Germany

Research Interests

Humanoid robots, walking, autonomous systems, cognitive systems, human machine interaction, hybrid systems, multi agent systems

Honours

- Scholarship award from the Japanese Society for the Promotion of Science (JSPS), 2004
- Member of ProLehre 2005: program for the promotion of university teaching

Most Important Relevant Publications (Selected)

[1] M. Buss, M. Hardt, J. Kiener, M. Sobotka, M. Stelzer, O. von Stryk, and **D. Wollherr**. Towards an autonomous, humanoid, and dynamically walking robot: Modelling, optimal trajectory planning, hardware architecture, and experiments. In *Proceedings of the IEEE/RAS International Conference on Humanoid Robots*, Karlsruhe, Germany, 2003.

[2] J. Mareczek, **D. Wollherr**, and M. Buss und G. Schmidt. Überschlagsvermeidung bei Kraftfahrzeugen durch Invarianzregelung. *at - Automatisierungstechnik*, 50(2):70–78, 2001.

[3] M. Sobotka, **D. Wollherr**, and M. Buss. A jacobian method for online modification of precalculated gait trajectories. In *Proceedings of the 6th International Conference on Climbing and Walking Robots*, pages 435–442, Catania, Italy, 2003.

[4] **D. Wollherr** and M. Buss. Cost oriented virtual reality and realtime control system architecture. *Robotica*, 21(3):289–294, 2003.

[5] **D. Wollherr** and M. Buss. Posture modification for biped humanoid robots based on jacobian method. In *Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems IROS*, pages 124–129, Sendai, Japan, 2004.

[6] **D. Wollherr**, M. Hardt, M. Buss, and O. von Stryk. Actuator selection and hardware realization of a small and fast-moving, autonomous humanoid robot. In *Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems IROS*, pages 2491–2496, Lausanne, Switzerland, 2002.

[7] **D. Wollherr**, M. Hardt, M. Buss, and O. von Stryk. Development and control of autonomous, biped locomotion using efficient modeling, simulation, and optimization techniques. In *Proceedings of the IEEE International Conference on Robotics and Automation*, pages 1356–1361, Taipei, Taiwan, 2003.

[8] **D. Wollherr**, F. Zonfrilli, and Y. Nakamura. Active-passive knee control for the humanoid UT-Theta. In *Proceedings of the International Conference on Advanced Robotics*, pages 692–697, Seattle, Washington, USA, 2005.

[9] **D. Wollherr**. *Design and Control Aspects of Humanoid Walking Robots*. Number 1078 in VDI Fortschritt-Berichte, Reihe 8. VDI Verlag GmbH, D¨usseldorf, 2005.

[10] F. Zonfrilli, **D. Wollherr**, and Y. Nakamura. Walking control of the humanoid UT-Theta. In *Proceedings of the International Conference on Advanced Robotics*, pages 698–704, Seattle, Washington, USA, 2005.