

## KnowRob: Knowledge processing for robots List of Publications

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- [J1] Moritz Tenorth, Alexander Clifford Perzylo, Reinhard Lafrenz and Michael Beetz,  
**Representation and Exchange of Knowledge about Actions, Objects, and Environments in the RoboEarth Framework,**  
*IEEE Transactions on Automation Science and Engineering (T-ASE)*, 2013.
- [C1] Charmayne Mary Lee Hughes, Moritz Tenorth, Marta Bienkiewicz and Joachim Hermsdörfer,  
**Action sequencing and error production in stroke patients with apraxia – Behavioral modeling using Bayesian Logic Networks,**  
*6th International Conference on Health Informatics (HEALTHINF 2013)*, Barcelona, Spain, February 11–14 2013.
- [C2] Moritz Tenorth, Fernando De la Torre and Michael Beetz,  
**Learning Probability Distributions over Partially-Ordered Human Everyday Activities,**  
*IEEE International Conference on Robotics and Automation (ICRA)*, Karlsruhe, Germany, May 6–10 2013.
- [J1] Zoltan-Csaba Marton, Florian Seidel, Ferenc Balint-Benczedi and Michael Beetz,  
**Ensembles of Strong Learners for Multi-cue Classification,**  
*Pattern Recognition Letters (PRL), Special Issue on Scene Understandings and Behaviours Analysis*, 2012.
- [C1] Martin Schuster, Dominik Jain, Moritz Tenorth and Michael Beetz,  
**Learning Organizational Principles in Human Environments,**  
*IEEE International Conference on Robotics and Automation (ICRA)*, St. Paul, MN, USA, 3867-3874, May 14–18 2012.
- [C2] Thomas Rühr, Jürgen Sturm, Dejan Pangercic, Michael Beetz and Daniel Cremers,  
**A Generalized Framework for Opening Doors and Drawers in Kitchen Environments,**  
*IEEE International Conference on Robotics and Automation (ICRA)*, St. Paul, MN, USA, May 14–18 2012.
- [C3] Moritz Tenorth, Alexander Clifford Perzylo, Reinhard Lafrenz and Michael Beetz,  
**The RoboEarth language: Representing and Exchanging Knowledge about Actions, Objects, and Environments,**  
*IEEE International Conference on Robotics and Automation (ICRA)*, St. Paul, MN, USA, May 14–18 2012.
- [C4] Lars Kunze, Michael Beetz, Manabu Saito, Haseru Azuma, Kei Okada and Masayuki Inaba,  
**Searching Objects in Large-scale Indoor Environments: A Decision-theoretic Approach,**  
*IEEE International Conference on Robotics and Automation (ICRA)*, St. Paul, MN, USA, May 14–18 2012.

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- [C5] Moritz Tenorth and Michael Beetz,  
**Knowledge Processing for Autonomous Robot Control**,  
*AAAI Spring Symposium on Designing Intelligent Robots: Reintegrating AI*, Stanford, CA, USA, March 26–28 2012.
- [C6] Michael Beetz, Moritz Tenorth, Dejan Pangercic and Benjamin Pitzer,  
**Semantic Object Maps for Household Tasks**,  
*5th International Conference on Cognitive Systems (CogSys 2012)*, 2012.
- [C7] Michael Beetz, Lorenz Mösenlechner, Moritz Tenorth and Thomas Rühr,  
**CRAM – a Cognitive Robot Abstract Machine**,  
*5th International Conference on Cognitive Systems (CogSys 2012)*, 2012.
- [C8] Daniel di Marco, Moritz Tenorth, Kai Häussermann, Oliver Zweigle and Paul Levi,  
**RoboEarth Action Recipe Execution**,  
*12th International Conference on Intelligent Autonomous Systems*, 2012.
- [C9] Moritz Tenorth and Michael Beetz,  
**Exchange of Action-related Information among Autonomous Robots**,  
*12th International Conference on Intelligent Autonomous Systems*, 2012.
- [C10] Moritz Tenorth and Michael Beetz,  
**A Unified Representation for Reasoning about Robot Actions, Processes, and their Effects on Objects**,  
*2012 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, Vilamoura, Portugal, October, 7–12 2012.
- [C11] Dejan Pangercic, Moritz Tenorth, Benjamin Pitzer and Michael Beetz,  
**Semantic Object Maps for Robotic Housework - Representation, Acquisition and Use**,  
*2012 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, Vilamoura, Portugal, October, 7–12 2012.
- [C12] L. Marconi, C. Melchiorri, M. Beetz, D. Pangercic, R. Siegwart, S. Leutenegger, R. Carloni, S. Stramigioli, H. Bruyninckx, P. Doherty, A. Kleiner, V. Lippiello, A. Finzi, B. Siciliano, A. Sala and N. Tomatis,  
**The SHERPA project: smart collaboration between humans and ground-aerial robots for improving rescuing activities in alpine environments**,  
*IEEE International Symposium on Safety, Security, and Rescue Robotics (SSRR)*, College Station, Texas, USA, Nov. 5-8 2012.
- [C13] Moritz Tenorth, Koji Kamei, Satoru Satake, Takahiro Miyashita and Norihiro Hagita,  
**Towards a Networked Robot Architecture for Distributed Task Execution and Knowledge Exchange**,  
*Third International Workshop on Standards and Common Platforms for Robotics (SCPR 2012)*, in conjunction with *SIMPAR 2012*, Tsukuba, Japan, November 5 2012.
- [J1] Moritz Tenorth, Ulrich Klank, Dejan Pangercic and Michael Beetz,  
**Web-enabled Robots – Robots that Use the Web as an Information Resource**,  
*Robotics & Automation Magazine*, 18(2): 58-68, 2011.

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- [J2] Markus Waibel, Michael Beetz, Raffaello D’Andrea, Rob Janssen, Moritz Tenorth, Javier Civera, Jos Elfring, Dorian Gálvez-López, Kai Häussermann, J.M.M. Montiel, Alexander Perzylo, Björn Schießle, Oliver Zweigle and René van de Molengraft,  
**RoboEarth - A World Wide Web for Robots,**  
*Robotics & Automation Magazine*, 18(2): 69-82, 2011.
- [C1] Lars Kunze, Mihai Emanuel Dolha, Emitza Guzman and Michael Beetz,  
**Simulation-based Temporal Projection of Everyday Robot Object Manipulation,**  
Yolum, Tumer, Stone and Sonenberg(Eds.), *Proc. of the 10th Int. Conf. on Autonomous Agents and Multiagent Systems (AAMAS 2011)*, Taipei, Taiwan, IFAAMAS, May, 2–6 2011.
- [C2] Lars Kunze, Tobias Roehm and Michael Beetz,  
**Towards Semantic Robot Description Languages,**  
*IEEE International Conference on Robotics and Automation (ICRA)*, Shanghai, China, 5589-5595, May, 9–13 2011.
- [C3] Daniel Nyga, Moritz Tenorth and Michael Beetz,  
**How-Models of Human Reaching Movements in the Context of Everyday Manipulation Activities,**  
*IEEE International Conference on Robotics and Automation (ICRA)*, Shanghai, China, May, 9–13 2011.
- [C4] Nico Blodow, Zoltan-Csaba Marton, Dejan Pangercic, Thomas Rühr, Moritz Tenorth and Michael Beetz,  
**Inferring Generalized Pick-and-Place Tasks from Pointing Gestures,**  
*IEEE International Conference on Robotics and Automation (ICRA), Workshop on Semantic Perception, Mapping and Exploration*, May, 9–13 2011.
- [C5] Lars Kunze, Mihai Emanuel Dolha and Michael Beetz,  
**Logic Programming with Simulation-based Temporal Projection for Everyday Robot Object Manipulation,**  
*2011 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, San Francisco, CA, USA, September, 25–30 2011.
- [C6] Michael Beetz, Ulrich Klank, Ingo Kresse, Alexis Maldonado, Lorenz Mösenlechner, Dejan Pangercic, Thomas Rühr and Moritz Tenorth,  
**Robotic Roommates Making Pancakes,**  
*11th IEEE-RAS International Conference on Humanoid Robots*, Bled, Slovenia, October, 26–28 2011.
- [C7] Manabu Saito, Haseru Chen, Kei Okada, Masayuki Inaba, Lars Kunze and Michael Beetz,  
**Semantic Object Search in Large-scale Indoor Environments,**  
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- [PhD1] Moritz Tenorth,  
**Knowledge Processing for Autonomous Robots,**  
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- [J1] Michael Beetz, Moritz Tenorth, Dominik Jain and Jan Bandouch,  
**Towards Automated Models of Activities of Daily Life,**  
*Technology and Disability*, 22(1-2): 27-40, 2010.
- [J2] Michael Beetz, Dominik Jain, Lorenz Mösenlechner and Moritz Tenorth,  
**Towards Performing Everyday Manipulation Activities,**  
*Robotics and Autonomous Systems*, 58(9): 1085-1095, 2010.
- [J3] Moritz Tenorth, Dominik Jain and Michael Beetz,  
**Knowledge Representation for Cognitive Robots,**  
*Künstliche Intelligenz*, 24(3): 233-240, 2010.
- [C1] Moritz Tenorth, Daniel Nyga and Michael Beetz,  
**Understanding and Executing Instructions for Everyday Manipulation Tasks from the World Wide Web,**  
*IEEE International Conference on Robotics and Automation (ICRA)*, Anchorage, AK, USA, 1486-1491, May 3–8 2010.
- [C2] Moritz Tenorth and Michael Beetz,  
**Priming Transformational Planning with Observations of Human Activities,**  
*IEEE International Conference on Robotics and Automation (ICRA)*, Anchorage, AK, USA, 1499-1504, May 3–8 2010.
- [C3] Dejan Pangercic, Moritz Tenorth, Dominik Jain and Michael Beetz,  
**Combining Perception and Knowledge Processing for Everyday Manipulation,**  
*IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, Taipei, Taiwan, 1065-1071, October 18-22 2010.
- [C4] Michael Beetz, Lorenz Mösenlechner and Moritz Tenorth,  
**CRAM – A Cognitive Robot Abstract Machine for Everyday Manipulation in Human Environments,**  
*IEEE/RSJ International Conference on Intelligent Robots and Systems*, Taipei, Taiwan, 1012-1017, October 18-22 2010.
- [C5] Lars Kunze, Moritz Tenorth and Michael Beetz,  
**Putting People’s Common Sense into Knowledge Bases of Household Robots,**  
*33rd Annual German Conference on Artificial Intelligence (KI 2010)*, Karlsruhe, Germany, Springer, 151-159, September 21-24 2010.
- [C6] Moritz Tenorth, Lars Kunze, Dominik Jain and Michael Beetz,  
**KNOWROB-MAP – Knowledge-Linked Semantic Object Maps,**  
*10th IEEE-RAS International Conference on Humanoid Robots*, Nashville, TN, USA, 430-435, December 6-8 2010.
- [R1] Moritz Tenorth and Michael Beetz,  
**Deliverable D5.2: The RoboEarth Language – Language Specification,**  
D5.2, FP7-ICT-248942 RoboEarth, 2010.

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- [C1] Dejan Pangercic, Rok Tavcar, Moritz Tenorth and Michael Beetz,  
**Visual Scene Detection and Interpretation using Encyclopedic Knowledge and Formal Description Logic,**  
*Proceedings of the International Conference on Advanced Robotics (ICAR).*, Munich, Germany, June 22 - 26 2009.
- [C2] Moritz Tenorth and Michael Beetz,  
**KnowRob – Knowledge Processing for Autonomous Personal Robots,**  
*IEEE/RSJ International Conference on Intelligent Robots and Systems*, 4261-4266, 2009.
- [C3] Moritz Tenorth, Jan Bandouch and Michael Beetz,  
**The TUM Kitchen Data Set of Everyday Manipulation Activities for Motion Tracking and Action Recognition,**  
*IEEE International Workshop on Tracking Humans for the Evaluation of their Motion in Image Sequences (THEMIS), in conjunction with ICCV2009*, 2009.
- [C4] Michael Beetz, Jan Bandouch, Dominik Jain and Moritz Tenorth,  
**Towards Automated Models of Activities of Daily Life,**  
*First International Symposium on Quality of Life Technology – Intelligent Systems for Better Living*, Pittsburgh, Pennsylvania USA, 2009.
- [R1] Moritz Tenorth, Daniel Nyga and Michael Beetz,  
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IAS group, Technische Universität München, Fakultät für Informatik, 2009.
- [C1] Michael Beetz, Freek Stulp, Bernd Radig, Jan Bandouch, Nico Blodow, Mihai Dolha, Andreas Fedrizzi, Dominik Jain, Uli Klank, Ingo Kresse, Alexis Maldonado, Zoltan Marton, Lorenz Mösenlechner, Federico Ruiz, Radu Bogdan Rusu and Moritz Tenorth,  
**The Assistive Kitchen – A Demonstration Scenario for Cognitive Technical Systems,**  
*IEEE 17th International Symposium on Robot and Human Interactive Communication (RO-MAN), Muenchen, Germany*, 1-8, 2008.
- [C2] Moritz Tenorth and Michael Beetz,  
**Towards Practical and Grounded Knowledge Representation Systems for Autonomous Household Robots,**  
*Proceedings of the 1st International Workshop on Cognition for Technical Systems, München, Germany, 6-8 October*, 2008.