Cop: Cognitive Perception

List of Publications

[C1] Ulrich Klank, Lorenz Mösenlechner, Alexis Maldonado and Michael Beetz,
Robots that Validate Learned Perceptual Models,
*IEEE International Conference on Robotics and Automation (ICRA)*, St. Paul, MN, USA,
May 14–18 2012.

[C2] Ferenc Balint-Benczedi, Zoltan-Csaba Marton and Michael Beetz,
Efficient Part-Graph Hashes for Object Categorization,

[C3] Zoltan-Csaba Marton, Ferenc Balint-Benczedi, Florian Seidel, Lucian Cosmin Goron and
Michael Beetz,
Object Categorization in Clutter using Additive Features and Hashing of Part-
graph Descriptors,
*Proceedings of Spatial Cognition (SC)*, Abbey Kloster Seeon, Germany, 2012.

[C4] Lucian Cosmin Goron, Zoltan Csaba Marton, Gheorghe Lazea and Michael Beetz,
Segmenting Cylindrical and Box-like Objects in Cluttered 3D Scenes,
*7th German Conference on Robotics (ROBOTIK)*, Munich, Germany, May 2012.

[C5] Zoltan-Csaba Marton, Florian Seidel and Michael Beetz,
Towards Modular Spatio-temporal Perception for Task-adapting Robots,
*Postgraduate Conference on Robotics and Development of Cognition (RobotDoC-PhD), a satellite event of the 22nd International Conference on Artificial Neural Networks (ICANN), Lausanne, Switzerland*, 2012.

[PhD1] Ulrich Klank,
Everyday Perception for Mobile Manipulation in Human Environments,
Technische Universität München, 2012.

[J1] Oscar Martinez Mozos, Zoltan Csaba Marton and Michael Beetz,
Furniture Models Learned from the WWW – Using Web Catalogs to Locate and Categorize Unknown Furniture Pieces in 3D Laser Scans,

[J2] Zoltan Csaba Marton, Dejan Pangeric, Nico Blodow and Michael Beetz,
Combined 2D-3D Categorization and Classification for Multimodal Perception Systems,

[C1] Ulrich Klank, Daniel Carton and Michael Beetz,
Transparent Object Detection and Reconstruction on a Mobile Platform,
*IEEE International Conference on Robotics and Automation (ICRA)*, Shanghai, China,
May, 9–13 2011.

[C2] Michael Beetz, Ulrich Klank, Alexis Maldonado, Dejan Pangeric and Thomas Rühr,
Robotic Roommates Making Pancakes - Look Into Perception-Manipulation Loop,
[C3] Shulei Zhu, Dejan Pangercic and Michael Beetz,
Contracting Curve Density Algorithm for Applications in Personal Robotics,

[C4] Michael Beetz, Ulrich Klank, Ingo Kresse, Alexis Maldonado, Lorenz Mösenlechner, Dejan Pangercic, Thomas Rühr and Moritz Tenorth,
Robotic Roommates Making Pancakes,

[C5] Ingo Kresse, Ulrich Klank and Michael Beetz,
Multimodal Autonomous Tool Analyses and Appropriate Application,

[C6] Dejan Pangercic, Vladimir Haltakov and Michael Beetz,
Fast and Robust Object Detection in Household Environments Using Vocabulary Trees with SIFT Descriptors,

[C7] Asako Kanezaki, Zoltan-Csaba Marton, Dejan Pangercic, Tatsuya Harada, Yasuo Kuniyoshi and Michael Beetz,
Voxelized Shape and Color Histograms for RGB-D,

[C8] Zoltan-Csaba Marton, Dejan Pangercic and Michael Beetz,
Efficient Surface and Feature Estimation in RGBD,

[C9] William R. Murray and Dominik Jain,
Modeling Cognitive Frames for Situations with Markov Logic Networks,

[BC1] Nicolai v. Hoyningen-Huene and Michael Beetz,
Importance Sampling as One Solution to the Data Association Problem in Multi-target Tracking,
[C1] Zoltan-Csaba Marton, Dejan Pangercic, Nico Blodow, Jonathan Kleinehellefort and Michael Beetz,
*General 3D Modelling of Novel Objects from a Single View*,

[C2] Dejan Pangercic, Moritz Tenorth, Dominik Jain and Michael Beetz,
*Combining Perception and Knowledge Processing for Everyday Manipulation*,

[C3] Zoltan-Csaba Marton, Dejan Pangercic, Radu Bogdan Rusu, Andreas Holzbach and Michael Beetz,
*Hierarchical Object Geometric Categorization and Appearance Classification for Mobile Manipulation*,

[C4] Nico Blodow, Dominik Jain, Zoltan-Csaba Marton and Michael Beetz,
*Perception and Probabilistic Anchoring for Dynamic World State Logging*,

[C5] Lucian Cosmin Goron, Zoltan Csaba Marton, Gheorghe Lazea and Michael Beetz,
*Automatic Layered 3D Reconstruction of Simplified Object Models for Grasping*,
Joint 41st International Symposium on Robotics (ISR) and 6th German Conference on Robotics (ROBOTIK), Munich, Germany, 2010.

[C1] Ulrich Klank, Dejan Pangercic, Radu Bogdan Rusu and Michael Beetz,
*Real-time CAD Model Matching for Mobile Manipulation and Grasping*,

[C2] 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.

[C3] Ulrich Klank, Muhammad Zeeshan Zia and Michael Beetz,
*3D Model Selection from an Internet Database for Robotic Vision*,

[C4] Muhammad Zeeshan Zia, Ulrich Klank and Michael Beetz,
*Acquisition of a Dense 3D Model Database for Robotic Vision*,
International Conference on Advanced Robotics (ICAR), 2009.

[C5] Li Sun, Ulrich Klank and Michael Beetz,
*EYEWATCHME - 3D Hand and object tracking for inside out activity analysis*,

[C7] Radu Bogdan Rusu, Andreas Holzbach, Gary Bradski and Michael Beetz, **Detecting and Segmenting Objects for Mobile Manipulation**, *Proceedings of IEEE Workshop on Search in 3D and Video (S3DV)*, held in conjunction with the 12th IEEE International Conference on Computer Vision (ICCV), Kyoto, Japan, September 27 2009.


[PhD1] Armin Müller,  
Transformational Planning for Autonomous Household Robots using Libraries of Robust and Flexible Plans,  
Technische Universität München, 2008.

[C1] Armin Müller and Michael Beetz,  
Towards a Plan Library for Household Robots,  

[C2] Radu Bogdan Rusu, Nico Blodow, Zoltan-Csaba Marton, Alina Soos and Michael Beetz,  
Towards 3D Object Maps for Autonomous Household Robots,  

[J1] Robert Hanek and Michael Beetz,  
The Contracting Curve Density Algorithm: Fitting Parametric Curve Models to Images Using Local Self-adapting Separation Criteria,  