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 Pangercic, 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 Pangercic 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 Vocabularv 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 (ICRA), 2009.

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