Dr. Jrg Stckler

List of Publications

[C1] V. Usenko, J. Engel, J. Stueckler and D. Cremers,
Direct Visual-Inertial Odometry with Stereo Cameras,
*Int. Conf. on Robotics and Automation*, May 2016.

[C2] L. Ma, C. Kerl, J. Stueckler and D. Cremers,
CPA-SLAM: Consistent Plane-Model Alignment for Direct RGB-D SLAM,
*Int. Conf. on Robotics and Automation*, May 2016.

[J1] J. Stueckler and S. Behnke,
Efficient Dense Rigid-Body Motion Segmentation and Estimation in RGB-D Video,

NimbRo Explorer: Semi-Autonomous Exploration and Mobile Manipulation in Rough Terrain,

[J3] D. Droeschel, M. Nieuwenhuisen, M. Beul, J. Stueckler, D. Holz and S. Behnke,
Multi-Layered Mapping and Navigation for Autonomous Micro Aerial Vehicles,

[C1] D. Holz, A. Topalidou-Kyniazopoulou, J. Stueckler and S. Behnke,
Real-Time Object Detection, Localization and Verification for Fast Robotic Depalletizing,

[C2] J. Engel, J. Stueckler and D. Cremers,
Large-Scale Direct SLAM with Stereo Cameras,

[C3] R. Maier, J. Stueckler and D. Cremers,
Super-Resolution Keyframe Fusion for 3D Modeling with High-Quality Textures,

[C4] V. Usenko, J. Engel, J. Stueckler and D. Cremers,
Reconstructing Street-Scenes in Real-Time From a Driving Car,

[C5] M. Jaimez, M. Souiai, J. Stueckler, J. Gonzalez-Jimenez and D. Cremers,
Motion Cooperation: Smooth Piece-Wise Rigid Scene Flow from RGB-D Images,

[C6] C. Kerl, J. Stueckler and D. Cremers,
Dense Continuous-Time Tracking and Mapping with Rolling Shutter RGB-D Cameras,
*IEEE International Conference on Computer Vision (ICCV)*, Santiago, Chile, 2015.
[J1] M. Schadler, J. Stueckler and S. Behnke,
Rough Terrain Mapping and Navigation using a Continuously Rotating 2D Laser Scanner,

[J2] J. Stueckler, B. Waldvogel, H. Schulz and S. Behnke,
Dense Real-Time Mapping of Object-Class Semantics from RGB-D Video,

[J3] J. Stueckler and S. Behnke,
Multi-Resolution Surfel Maps for Efficient Dense 3D Modeling and Tracking,

[C1] J. Stueckler and S. Behnke,
Adaptive Tool-Use Strategies for Anthropomorphic Service Robots,
*Proc. of the 14th IEEE-RAS International Conference on Humanoid Robots (Humanoids)*,
to appear, November 2014.

[C2] D. Droeschel, J. Stueckler and S. Behnke,
Local Multi-Resolution Surfel Grids for MAV Motion Estimation and 3D Mapping,
*Proc. of the 13th International Conference on Intelligent Autonomous Systems (IAS)*,

[C3] J. Stueckler, A. Gutt and S. Behnke,
Combining the Strengths of Sparse Interest Point and Dense Image Registration for RGB-D Odometry,
*Proc. of the Joint 45th International Symposium on Robotics (ISR) and 8th German Conference on Robotics (ROBOTIK)*,
to appear, June 2014.

[C4] J. Stueckler and S. Behnke,
Efficient deformable registration of multi-resolution surfel maps for object manipulation skill transfer,

[C5] D. Droeschel, J. Stueckler and S. Behnke,
Local multi-resolution representation for 6D motion estimation and mapping with a continuously rotating 3D laser scanner,
*Proc. of the IEEE Int. Conf. on Robotics and Automation (ICRA)*, 5221-5226, May 2014.

[C6] M. Schwarz, J. Stueckler and S. Behnke,
Mobile Teleoperation Interfaces with Adjustable Autonomy for Personal Service Robots,

[PhD1] J. Stueckler,
Efficient Dense Registration, Segmentation, and Modeling Methods for RGB-D Environment Perception,
Faculty of Mathematics and Natural Sciences, University of Bonn, Germany, 2014.
[C1] M. Schadler, J. Stueckler and S. Behnke,
Multi-resolution surfel mapping and real-time pose tracking using a continuously rotating 2D laser scanner,

[C2] J. Stueckler and S. Behnke,
Efficient Dense 3D Rigid-Body Motion Segmentation in RGB-D Video,

[C3] M. McElhone, J. Stueckler and S. Behnke,
Joint detection and pose tracking of multi-resolution surfel models in RGB-D,

Distinctive 3D surface entropy features for place recognition.,

[C5] A. Berner, Jun Li, D. Holz, J. Stueckler, S. Behnke and R. Klein,
Combining contour and shape primitives for object detection and pose estimation of prefabricated parts,

[C6] J. Stueckler and S. Behnke,
Hierarchical Object Discovery and Dense Modelling From Motion Cues in RGB-D Video,

[C7] M. Nieuwenhuisen, D. Droeschel, D. Holz, J. Stueckler, A. Berner, Jun Li, R. Klein and S. Behnke,
Mobile bin picking with an anthropomorphic service robot,

[J1] J. Stueckler, R. Steffens, D. Holz and S. Behnke,
Efficient 3D Object Perception and Grasp Planning for Mobile Manipulation in Domestic Environments,

[J2] J. Stueckler, R. Steffens, D. Holz and S. Behnke,
RoboCup@Home: Demonstrating Everyday Manipulation Skills in RoboCup@Home,

[C1] U. Hubert, J. Stueckler and S. Behnke,
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Semantic mapping using object-class segmentation of RGB-D images, 
*Proc. of the IEEE/RSJ Int. Conf. on Intelligent Robots and Systems (IROS)*, 3005-3010, October 2012.

[C3] J. Stueckler and S. Behnke, 
Integrating depth and color cues for dense multi-resolution scene mapping using RGB-D cameras, 
*Proc. of the IEEE Int. Conf. on Multisensor Fusion and Integration for Intelligent Systems (MFI)*, 162-167, September 2012.

[C4] S. Muszynski, J. Stueckler and S. Behnke, 
Adjustable autonomy for mobile teleoperation of personal service robots, 
*Proc. of the IEEE Int. Symp. on Robot and Human Interactive Communication*, 933-940, September 2012.

[C5] T. Fiolka, J. Stueckler, D. A. Klein, D. Schulz and S. Behnke, 
SURE: Surface Entropy for Distinctive 3D Features, 
*Proc. of Spatial Cognition*, 2012.

Adaptive Multi-cue 3D Tracking of Arbitrary Objects, 

[C7] J. Stueckler and S. Behnke, 
Model Learning and Real-Time Tracking Using Multi-Resolution Surfel Maps, 
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[C8] M. Nieuwenhuisen, J. Stueckler, A. Berner, R. Klein and S. Behnke, 
Shape-Primitive Based Object Recognition and Grasping, 

[C9] J. Kl, J. Stueckler and S. Behnke, 
Efficient Mobile Robot Navigation using 3D Surfel Grid Maps, 

[C10] J. Stueckler and S. Behnke, 
Robust Real-Time Registration of RGB-D Images using Multi-Resolution Surfel Representations, 

[C1] B. Oehler, J. Stueckler, J. Welle, D. Schulz and S. Behnke, 
Efficient Multi-resolution Plane Segmentation of 3D Point Clouds, 

[C2] J. Stueckler and S. Behnke, 
Following human guidance to cooperatively carry a large object, 
*Proc. of the 11th IEEE-RAS Int. Conf. on Humanoid Robots (Humanoids)*, 218-223, October 2011.
[C3] J. Stueckler, R. Steffens, D. Holz and S. Behnke,
Real-Time 3D Perception and Efficient Grasp Planning for Everyday Manipulation Tasks,
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[C4] J. Stueckler and S. Behnke,
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[C5] D. Droeschel, J. Stueckler, D. Holz and S. Behnke,
Towards joint attention for a domestic service robot - person awareness and gesture recognition using Time-of-Flight cameras,
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[C6] J. Stueckler and S. Behnke,
Interest point detection in depth images through scale-space surface analysis,
Proc. of the IEEE Int. Conf. on Robotics and Automation (ICRA), 3568-3574, May 2011.

[C7] D. Droeschel, J. Stueckler and S. Behnke,
Learning to Interpret Pointing Gestures with a Time-of-flight Camera,

[C1] K. Grve, J. Stueckler and S. Behnke,
Improving imitated grasping motions through interactive expected deviation learning,
Proc. of the 10th IEEE-RAS Int. Conf. on Humanoid Robots (Humanoids), 397-404, December 2010.

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Proc. of the IEEE/RSJ Int. Conf. on Intelligent Robots and Systems (IROS), 4566-4571, October 2010.

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Improving People Awareness of Service Robots by Semantic Scene Knowledge,
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Towards Semantic Scene Analysis with Time-of-flight Cameras,
del Solar, Javier Ruiz, Chown, Eric, Plger and Paul-Gerhard(Eds.), RobuCup, Springer,

[C5] H. Schulz, W. Liu, J. Stueckler and S. Behnke,
Utilizing the Structure of Field Lines for Efficient Soccer Robot Localization,
del Solar, Javier Ruiz, Chown, Eric, Plger and Paul-Gerhard(Eds.), RobuCup, Springer,
[C6] K. Grve, J. Stueckler and S. Behnke,
Learning Motion Skills from Expert Demonstrations and Own Experience using Gaussian Process Regression,

[C7] M. Nieuwenhuisen, J. Stueckler and S. Behnke,
Intuitive Multimodal Interaction for Domestic Service Robots,

[C8] M. Nieuwenhuisen, J. Stueckler and S. Behnke,
Improving indoor navigation of autonomous robots by an explicit representation of doors,
Proc. of the IEEE Int. Conf. on Robotics and Automation (ICRA), 4895-4901, May 2010.

[C9] D. Droeschel, D. Holz, J. Stueckler and S. Behnke,
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Hierarchical Reactive Control for Humanoid Soccer Robots,

[C1] J. Stueckler, H. Schulz and S. Behnke,
In-lane Localization in Road Networks using Curbs Detected in Omnidirectional Height Images,

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Orthogonal wall correction for visual motion estimation,
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