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*Proc. of the German Conference on Pattern Recognition (GCPR)*, October 2018.

[C21] Nikolaus Mayer, Eddy Ilg, Philipp Fischer, Caner Hazirbas, Daniel Cremers, Alexey Dosovitskiy and Thomas Brox,
What Makes Good Synthetic Training Data for Learning Disparity and Optical Flow Estimation?,  
September 2018.
[C22] T. Frerix, T. Möllenhoff, M. Moeller and D. Cremers, 
Proximal Backpropagation, 

Discrete-Continuous ADMM for Transductive Inference in Higher-Order MRFs, 
2018.

[C24] L. von Stumberg, V. Usenko and D. Cremers, 
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May 2018.

The TUM VI Benchmark for Evaluating Visual-Inertial Odometry, 
October 2018.

[C26] X. Gao, R. Wang, N. Demmel and D. Cremers, 
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*iros*, October 2018.

[C27] Z. Lähner, D. Cremers and T. Tung, 
DeepWrinkles: Accurate and Realistic Clothing Modeling, 
September 2018, *Oral Presentation*.

[C28] D. Schubert, N. Demmel, V. Usenko, J. Stueckler and D. Cremers, 
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September 2018, *Oral Presentation*.

[C29] V. Usenko, N. Demmel and D. Cremers, 
The Double Sphere Camera Model, 

[C30] I. Chiotellis, F. Zimmermann, D. Cremers and R. Triebel, 
Incremental Semi-Supervised Learning from Streams for Object Classification, 

6DoF Pose Estimation for Industrial Manipulation based on Synthetic Data, 

[C32] C. Nissler, M. Durner, Z.-C. Marton and R. Triebel, 
Simultaneous Calibration and Mapping, 

[C33] P. Wenzel, Q. Khan, D. Cremers and L. Leal-Taixe, 
Modular Vehicle Control for Transferring Semantic Information Between Weather Conditions Using GANs, 
*Conference on Robot Learning (CoRL)*, 2018.
[C34] Haefner, B., Queau, Y., Möllenhoff, T., Cremers and D.,
Fight ill-posedness with ill-posedness: Single-shot variational depth super-resolution from shading,
*IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2018, Spotlight Presentation.

[C35] I. Grixa, P. Schulz, W. Stürzl and R. Triebel,
Appearance-Based Along-Route Localization for Planetary Missions,

[C36] M. Sundermeyer, Z. Marton, M. Durner, M. Brucker and R. Triebel,
Implicit 3D Orientation Learning for 6D Object Detection from RGB Images,
September 2018, Best Paper Award.

[C37] M. Denninger and R. Triebel,
Persistent Anytime Learning of Objects from Unseen Classes,

[C38] M. Jaimez, C. Kerl, J. Gonzalez-Jimenez and D. Cremers,
Fast Odometry and Scene Flow from RGB-D Cameras based on Geometric Clustering,
*Proc. of the IEEE Int. Conf. on Robotics and Automation (ICRA)*, 2017.

[C39] M. Jaimez, T. J. Cashman, A. Fitzgibbon, J. Gonzalez-Jimenez and D. Cremers,
An Efficient Background Term for 3D Reconstruction and Tracking with Smooth Subdivision Surface Models,
2017.

[C40] L. Ma, J. Stueckler, C. Kerl and D. Cremers,
Multi-View Deep Learning for Consistent Semantic Mapping with RGB-D Cameras,
Vancouver, Canada, Sep 2017.

[C41] Vestner, M., Litman, R., Rodola, E., Bronstein, A., Cremers and D.,
Product Manifold Filter: Non-Rigid Shape Correspondence via Kernel Density Estimation in the Product Space,
2017.

[C42] M. Dzitsiuk, J. Sturm, R. Maier, L. Ma and D. Cremers,
De-noising, Stabilizing and Completing 3D Reconstructions On-the-go using Plane Priors,

[C43] L. von Stumberg, V. Usenko, J. Engel, J. Stueckler and D. Cremers,
From Monocular SLAM to Autonomous Drone Exploration,

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Image-based localization using LSTMs for structured feature correlation,
October 2017.


[C56] T. Möllenhoff and D. Cremers,  
Sublabel-Accurate Discretization of Nonconvex Free-Discontinuity Problems,  

[C57] Christian Nissler, Zoltan-Csaba Marton, Hannes Kisner, Ulrike Thomas and Rudolph Triebel,  
A Method for Hand-Eye and Camera-to-Camera Calibration for Limited Fields of View,  
2017.

[C58] Tick Son Wang, Zoltan-Csaba Marton, Manuel Brucker and Rudolph Triebel,  
How Robots Learn to Classify New Objects Trained from Small Data Sets,  
*Conference on Robot Learning (CoRL)*, 2017.

[C59] Maximilian Durner, Simon Kriegel, Sebastian Riedel, Manuel Brucker, Zoltan-Csaba Marton, Ferenc Balint-Benczedi and Rudolph Triebel,  
Experience-based Optimization of Robotic Perception,  

[C60] Queau, Y., Melou, J., Castan, F., Cremers, D., Durou and J.-D.,  
A Variational Approach to Shape-from-shading Under Natural Illumination,  

[C61] F. Bernard, F. R. Schmidt, J. Thunberg and D. Cremers,  
A Combinatorial Solution to Non-Rigid 3D Shape-to-Image Matching,  

[C62] A. Kasyanov, F. Engelmann, J. Stueckler and B. Leibe,  
Keyframe-Based Visual-Inertial Online SLAM with Relocalization,  

[C63] F. Engelmann, J. Stueckler and B. Leibe,  
SAMP: Shape and Motion Priors for 4D Vehicle Reconstruction,  

[C64] Peng, S., Haefner, B., Queau, Y., Cremers and D.,  
Depth Super-Resolution Meets Uncalibrated Photometric Stereo,  
*International Conference on Computer Vision Workshops (ICCVW)*, 2017, *Oral Presentation at ICCV Workshop on Color and Photometry in Computer Vision*.

[C65] N.Mayer, E.Ilg, P.Haeusser, P.Fischer, D.Cremers, A.Dosovitskiy and T.Brox,  
A Large Dataset to Train Convolutional Networks for Disparity, Optical Flow, and Scene Flow Estimation,  
*IEEE International Conference on Computer Vision and Pattern Recognition (CVPR)*, 2016.

[C66] V. Golkov, T. Sprenger, J. I. Sperl, M. I. Menzel, M. Czisch, P. Sämann and D. Cremers,  
Model-Free Novelty-Based Diffusion MRI,  
Prague, Czech Republic, April 2016.

[C67] V. Golkov, M. J. Skwark, A. Golkov, A. Dosovitskiy, T. Brox, J. Meiler and D. Cremers,  
Protein Contact Prediction from Amino Acid Co-Evolution Using Convolutional Networks for Graph-Valued Images,  
Barcelona, Spain, December 2016.
All: 1

List of Publications

[C68] Z. Lähner, E. Rodola, F. R. Schmidt, M. M. Bronstein and D. Cremers,
Efficient Globally Optimal 2D-to-3D Deformable Shape Matching,
May 2016.

[C69] A. Narr, R. Triebel and D. Cremers,
Stream-based Active Learning for Efficient and Adaptive Classification of 3D Objects,
May 2016.

[C70] Z. Lähner, E. Rodola, M. M. Bronstein, D. Cremers, O. Burghard, L. Cosmo, A. Dieckmann, R. Klein and Y. Sahillioglu,
SHREC16: Matching of Deformable Shapes with Topological Noise,
May 2016.

[C71] L. Cosmo, E. Rodola, M. M. Bronstein, A. Torsello, D. Cremers and Y. Sahillioglu,
SHREC16: Partial Matching of Deformable Shapes,
May 2016.

[C72] T. Möllenhoff, E. Laude, M. Moeller, J. Lellmann and D. Cremers,
Sublabel-Accurate Relaxation of Nonconvex Energies,
2016.

[C73] L. Ma, C. Kerl, J. Stueckler and D. Cremers,
CPA-SLAM: Consistent Plane-Model Alignment for Direct RGB-D SLAM,
May 2016.

[C74] J. Engel, V. Usenko and D. Cremers,
A Photometrically Calibrated Benchmark For Monocular Visual Odometry,

[C75] J. Engel, V. Koltun and D. Cremers,
Direct Sparse Odometry,

[C76] E. Laude, T. Möllenhoff, M. Moeller, J. Lellmann and D. Cremers,
Sublabel-Accurate Convex Relaxation of Vectorial Multilabel Energies,
October 2016.

[C77] T. Windheuser and D. Cremers,
A Convex Solution to Spatially-Regularized Correspondence Problems,
October 2016.

[C78] S. Sharifzadeh, I. Chiotellis, R. Triebel and D. Cremers,
Learning to Drive using Inverse Reinforcement Learning and Deep Q-Networks,
NIPS Workshops, December 2016.

[C79] D. Klostermann, A. Osep, J. Stueckler and B. Leibe,
Unsupervised Learning of Shape-Motion Patterns for Objects in Urban Street Scenes,
\textit{British Machine Vision Conference (BMVC)}, 2016.

[C80] D. Kochanov, A. Osep, J. Stueckler and B. Leibe,
Scene Flow Propagation for Semantic Mapping and Object Discovery in Dynamic Street Scenes,
[C81] F. Engelmann, J. Stueckler and B. Leibe, 
Joint Object Pose Estimation and Shape Reconstruction in Urban Street Scenes Using 3D Shape Priors, 
Proc. of the German Conference on Pattern Recognition (GCPR), 2016.

[C82] M. Moeller, J. Diebold, G. Gilboa and D. Cremers, 
Learning Nonlinear Spectral Filters for Color Image Reconstruction, 
2015.

[C83] J. Diebold, N. Demmel, C. Hazirbas, M. Möller and D. Cremers, 
Interactive Multi-label Segmentation of RGB-D Images, 
2015.

[C84] C. Hazirbas, J. Diebold and D. Cremers, 
Optimizing the Relevance-Redundancy Tradeoff for Efficient Semantic Segmentation, 
2015.

[C85] A. Kanezaki, E. Rodola and T. Harada, 
RGB-D [Graph matching gakushuu wo mochiita RGB-D gazou kara no but-tai kenshutsu] - Learning graph matching for object detection from RGB-D images, 
20 - Robotics Symposia (RS), Karuizawa, Japan, March 2015.

[C86] T. Möllenhoff, E. Strekalovskiy, M. Möller and D. Cremers, 
Low Rank Priors for Color Image Regularization, 
2015.

[C87] M. Jaimez, M. Souiai, J. Gonzalez-Jimenez and D. Cremers, 
A Primal-Dual Framework for Real-Time Dense RGB-D Scene Flow, 
Proc. of the IEEE Int. Conf. on Robotics and Automation (ICRA), 2015.

[C88] J. Stühmer and D. Cremers, 
A Fast Projection Method for Connectivity Constraints in Image Segmentati-on, 
X.-C. Tai, E. Bae, T. F. Chan and M. Lysaker(Eds.), , 2015.

[C89] R. Mecca, E. Rodola and D. Cremers, 
Analysis of Surface Parametrizations for Modern Photometric Stereo Modeling, 
International Conference on Quality Control by Artificial Vision (QCAV), 2015.

[C90] F. Bergamasco, A. Albarelli, L. Cosmo, A. Torsello, E. Rodola and D. Cremers, 
Adopting an Unconstrained Ray Model in Light-field Cameras for 3D Shape Reconstruction, 
2015.

[C91] D. Mund, R. Triebel and D. Cremers, 
Active Online Confidence Boosting for Efficient Object Classification, 

Using Diffusion and Structural MRI for the Automated Segmentation of Multiple Sclerosis Lesions, 
2015.
[C93] M.I. Menzel, T. Sprenger, E.T. Tan, V. Golkov, C.J. Hardy, L. Marinelli and J.I. Sperl, 
Robustness of Phase Sensitive Reconstruction in Diffusion Spectrum Imaging, 
2015.

[C94] A. Menini, V. Golkov and F. Wiesinger, 
Free-Breathing, Self-Navigated RUFIS Lung Imaging with Motion Compensated Image Reconstruction, 
2015.

[C95] V. Golkov, A. Dosovitskiy, P. Sämann, J. I. Sperl, T. Sprenger, M. Czisch, M. I. Menzel, 
P. A. Gomez, A. Haase, T. Brox and D. Cremers, 
q-Space Deep Learning for Twelve-Fold Shorter and Model-Free Diffusion MRI Scans, 
Munich, Germany, October 2015.

[C96] A. Dosovitskiy, P. Fischer, E. Ilg, P. Haeusser, C. Hazirbas, V. Golkov, P. van der Smagt, 
D. Cremers and T. Brox, 
FlowNet: Learning Optical Flow with Convolutional Networks, 
December 2015.

V. Evers, M. Fiore, H. Hung, O. A. Islas Ramirez, M. Joosse, H. Kambhaita, T. Kucner, 
Rafi, M. van Rooij and L. Zhang, 
SPENCER: A Socially Aware Service Robot for Passenger Guidance and Help in Busy Airports, 

[C98] D. Holz, A. Topalidou-Kyniazopoulou, J. Stueckler and S. Behnke, 
Real-Time Object Detection, Localization and Verification for Fast Robotic Depalletizing, 
2015.

[C99] J. Engel, J. Stueckler and D. Cremers, 
Large-Scale Direct SLAM with Stereo Cameras, 
2015.

[C100] D. Caruso, J. Engel and D. Cremers, 
Large-Scale Direct SLAM for Omnidirectional Cameras, 
2015.

[C101] Y. Tao, R. Triebel and D. Cremers, 
Semi-supervised Online Learning for Efficient Classification of Objects in 3D Data Streams, 
2015.

[C102] R. Maier, J. Stueckler and D. Cremers, 
Super-Resolution Keyframe Fusion for 3D Modeling with High-Quality Textures, 
International Conference on 3D Vision (3DV), 2015.

[C103] M. Jaimez, M. Souiai, J. Stueckler, J. Gonzalez-Jimenez and D. Cremers, 
Motion Cooperation: Smooth Piece-Wise Rigid Scene Flow from RGB-D Images, 
All: 1  

List of Publications

[C104] E. Rodola, M. Moeller and D. Cremers,  
Point-wise Map Recovery and Refinement from Functional Correspondence,  
Aachen, Germany, 2015, Received the Best Paper Award.

[C105] C. Kerl, J. Stueckler and D. Cremers,  
Dense Continuous-Time Tracking and Mapping with Rolling Shutter RGB-D Cameras,  
Santiago, Chile, 2015.

[C106] M. Souiai, M. R. Oswald, Y. Kee, J. Kim, M. Pollefeys and D. Cremers,  
Entropy Minimization for Convex Relaxation Approaches,  
Santiago, Chile, 2015.

[C107] F. Stark, C. Hazirbas, R. Triebel and D. Cremers,  
CAPTCHA Recognition with Active Deep Learning,  
GCPR Workshop on New Challenges in Neural Computation, Aachen, Germany, 2015.

[C108] N. Nagaraja, F. R. Schmidt and T. Brox,  
Video Segmentation with Just a Few Strokes,  
Santiago, Chile, Dec 2015.

Model-Based Tracking at 300Hz using Raw Time-of-Flight Observations,  
Santiago, Chile, 2015.

Novel Acquisition Scheme for Diffusion Kurtosis Imaging Based on Compressed-Sensing Accelerated DSI Yielding Superior Image Quality,  
2014.

Total Variation-Regularized Compressed Sensing Reconstruction for Multi-Shell Diffusion Kurtosis Imaging,  
2014.

Direct Reconstruction of the Average Diffusion Propagator with Simultaneous Compressed-Sensing-Accelerated Diffusion Spectrum Imaging and Image Denoising by Means of Total Generalized Variation Regularization,  
2014.

[C113] V. Golkov, M.I. Menzel, T. Sprenger, A. Haase, D. Cremers and J.I. Sperl,  
Semi-Joint Reconstruction for Diffusion MRI Denoising Imposing Similarity of Edges in Similar Diffusion-Weighted Images,  
2014.

Improved Diffusion Kurtosis Imaging and Direct Propagator Estimation Using 6-D Compressed Sensing,  
2014.

[C115] D. Weikersdorfer, D. B. Adrian, D. Cremers and J. Conrad,  
Event-based 3D SLAM with a depth-augmented dynamic vision sensor,  
2014.
[C116] F. Steinbruecker, J. Sturm and D. Cremers,
Volumetric 3D Mapping in Real-Time on a CPU,
Hongkong, China, 2014.

[C117] E. Rodola, S. Rota Bulo, T. Windheuser, M. Vestner and D. Cremers,
Dense Non-Rigid Shape Correspondence Using Random Forests,
2014.

[C118] Y. Kee, M. Souiai, D. Cremers and J. Kim,
Sequential Convex Relaxation for Mutual-Information-Based Unsupervised
Figure-Ground Segmentation,
2014.

[C119] H. Alvarez, L.M. Paz, J. Sturm and D. Cremers,
Collision Avoidance for Quadrotors with a Monocular Camera,

[C120] J. Engel, T. Schöps and D. Cremers,
LSD-SLAM: Large-Scale Direct Monocular SLAM,
September 2014, Oral Presentation.

[C121] T. Schöps, J. Engel and D. Cremers,
Semi-Dense Visual Odometry for AR on a Smartphone,
September 2014, Best Short Paper Award.

[C122] T. Windheuser, M. Vestner, E. Rodola, R. Triebel and D. Cremers,
Optimal Intrinsic Descriptors for Non-Rigid Shape Analysis,
2014.

[C123] M. Strobel, J. Diebold and D. Cremers,
Flow and Color Inpainting for Video Completion,
German Conference on Pattern Recognition (GCPR), Münster, Germany, September 2014, Oral Presentation.

[C124] R. Maier, J. Sturm and D. Cremers,
Submap-based Bundle Adjustment for 3D Reconstruction from RGB-D Data,
German Conference on Pattern Recognition (GCPR), Münster, Germany, September 2014.

[C125] T. Gurdan, M. R. Oswald, D. Gurdan and D. Cremers,
Spatial and Temporal Interpolation of Multi-View Image Sequences,
Münster, Germany, Vol. 36, September 2014.

[C126] M. R. Oswald and D. Cremers,
Surface Normal Integration for Convex Space-time Multi-view Reconstruction,
2014.

[C127] C. Nieuwenhuis, S. Hawe, M. Kleinsteuber and D. Cremers,
Co-Sparse Textural Similarity for Interactive Segmentation,
2014.

[C128] M. R. Oswald, J. Stühmer and D. Cremers,
Generalized Connectivity Constraints for Spatio-temporal 3D Reconstruction,

[C129] E. Strekalovskiy and D. Cremers,
Real-Time Minimization of the Piecewise Smooth Mumford-Shah Functional,
[C130] A. Kanezaki, E. Rodola and T. Harada, 
RGB-D [RGB-D gazou kara no buttabi kenshutsu ni okeru taiou tenshuugou ruijido no gakushuu],

[C131] A. Kanezaki, E. Rodola, D. Cremers and T. Harada, 
[Taiou tenshuugou ruijido gakushuu wo mochiita goutai-higoutai buttabi kenshutsu],

[C132] M. Andreux, E. Rodola, M. Aubry and D. Cremers, 
Anisotropic Laplace-Beltrami Operators for Shape Analysis,
Sixth Workshop on Non-Rigid Shape Analysis and Deformable Image Alignment (NORDIA), 2014.

[C133] O. Dunkley, J. Engel, J. Sturm and D. Cremers, 
Visual-Inertial Navigation for a Camera-Equipped 25g Nano-Quadrotor,

[C134] R. Triebel, J. Stühmer, M. Souiai and D. Cremers, 
Active Online Learning for Interactive Segmentation Using Sparse Gaussian Processes,
German Conference on Pattern Recognition, 2014.

[C135] S. Debnath, S. S. Baishya, R. Triebel, V. Dutt and D. Cremers, 
Environment-adaptive Learning: How Clustering Helps to Obtain Good Training Data,

[C136] A. Kanezaki, E. Rodola, D. Cremers and T. Harada, 
Learning Similarities for Rigid and Non-Rigid Object Detection,
International Conference on 3D Vision (3DV), 2014.

[C137] D. Bender, M. Schikora, J. Sturm and D. Cremers, 
INS-Camera Calibration without Ground Control Points,
9th IEEE ISIF Workshop on Sensor Data Fusion: Trends, Solutions, Applications (SDF), 2014.

[C138] C. Kerl, M. Souiai, J. Sturm and D. Cremers, 
Towards Illumination-invariant 3D Reconstruction using ToF RGB-D Cameras,
International Conference on 3D Vision (3DV), 2014.

[C139] J. Stueckler and S. Behnke, 
Adaptive Tool-Use Strategies for Anthropomorphic Service Robots,

[C140] D. Droeschel, J. Stueckler and S. Behnke, 
Local Multi-Resolution Surfel Grids for MAV Motion Estimation and 3D Mapping,
[C141] 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.

[C142] J. Stueckler and S. Behnke, 
Efficient deformable registration of multi-resolution surfel maps for object manipulation skill transfer, 

[C143] 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.

[C144] M. Schwarz, J. Stueckler and S. Behnke, 
Mobile Teleoperation Interfaces with Adjustable Autonomy for Personal Service Robots, 

[C145] F. R. Schmidt, T. Windheuser, U. Schlickewei and D. Cremers, 
Dense Elastic 3D Shape Matching, 

[C146] Bergbauer, Julia, Tari and Sibel, 
Wimmelbild Analysis with Approximate Curvature Coding Distance Images, 

[C147] Bergbauer, Julia, Tari and Sibel, 
Top-down visual search in Wimmelbild, 

[C148] F. Bergamasco, A. Albarelli, E. Rodola and A. Torsello, 
Can a fully unconstrained imaging model be applied effectively to central cameras?, 
2013.

[C149] M. Souiai, C. Nieuwenhuis, E. Strekalovskiy and D. Cremers, 
Convex Optimization for Scene Understanding, 
ICCV Workshop on Graphical Models for Scene Understanding, 2013.

[C150] J. Bergbauer, C. Nieuwenhuis, M. Souiai and D. Cremers, 
Proximity Priors for Variational Semantic Segmentation and Recognition, 
ICCV Workshop on Graphical Models for Scene Understanding, 2013.

[C151] V. Golkov, T. Sprenger, A. Menini, M.I. Menzel, D. Cremers and J.I. Sperl, 
Effects of Low-Rank Constraints, Line-Process Denoising, and q-Space Compressed Sensing on Diffusion MR Image Reconstruction and Kurtosis Tensor Estimation, 
2013, Oral Presentation.
All: 1

List of Publications

[C152] V. Golkov, T. Sprenger, M.I. Menzel, D. Cremers and J.I. Sperl,
Line-Process-Based Joint SENSE Reconstruction of Diffusion Images with Intensity Inhomogeneity Correction and Noise Non-Stationarity Correction, 2013, Certificate of Merit Award.

[C153] V. Golkov, M.I. Menzel, T. Sprenger, A. Menini, D. Cremers and J.I. Sperl,
Reconstruction, Regularization, and Quality in Diffusion MRI Using the Example of Accelerated Diffusion Spectrum Imaging, 
16th Annual Meeting of the German Chapter of the ISMRM, 2013, Oral Presentation.

[C154] V. Golkov, M.I. Menzel, T. Sprenger, A. Menini, D. Cremers and J.I. Sperl,
Corrected Joint SENSE Reconstruction, Low-Rank Constraints, and Compressed-Sensing-Accelerated Diffusion Spectrum Imaging in Denoising and Kurtosis Tensor Estimation, 
ISMRM Workshop on Diffusion as a Probe of Neural Tissue Microstructure, 2013.


Noise Reduction in Accelerated Diffusion Spectrum Imaging through Integration of SENSE Reconstruction into Joint Reconstruction in Combination with q-Space Compressed Sensing, 2013.

[C158] C. Kerl, J. Sturm and D. Cremers, 
Robust Odometry Estimation for RGB-D Cameras, 
May 2013, Best Vision Paper Award - Finalist.

[C159] E. Toeppe, C. Nieuwenhuis and D. Cremers, 
Volume Constraints for Single View Reconstruction, 
Portland, USA, 2013.

Toward Automated Driving in Cities using Close-to-Market Sensors, 

[C161] H. Grimmertt, R. Paul, R. Triebel and I. Posner, 
Knowing When We Dont Know: Introspective Classification for Mission-Critical Decision Making, 
C162] D. Weikersdorfer, A. Schick and D. Cremers,
Depth-adaptive Supervoxels for RGB-D Video Segmentation,
2013.

[C163] R. Triebel, H. Grimmett and I. Posner,
Confidence Boosting: Improving the Introspectiveness of a Boosted Classifier for Efficient Learning,

Introspective Active Learning for Scalable Semantic Mapping,

[C165] E. Bylow, J. Sturm, C. Kerl, F. Kahl and D. Cremers,
Real-Time Camera Tracking and 3D Reconstruction Using Signed Distance Functions,

[C166] E. Bylow, J. Sturm, C. Kerl, F. Kahl and D. Cremers,
Direct Camera Pose Tracking and Mapping With Signed Distance Functions,
Demo Track of the RGB-D Workshop on Advanced Reasoning with Depth Cameras at the Robotics: Science and Systems Conference (RSS), June 2013.

[C167] J. Sturm and W. Burgard,
Learning Probabilistic Models for Mobile Manipulation Robots,
Proc. of the International Joint Conference on Artificial Intelligence (IJCAI), Track on Best papers in Sister Conferences, 2013.

[C168] M. Souiai, E. Strekalovskiy, C. Nieuwenhuis and D. Cremers,
A Co-occurrence Prior for Continuous Multi-Label Optimization,
2013.

[C169] F. Stangl, M. Souiai and D. Cremers,
Performance Evaluation of Narrow Band Methods for Variational Stereo,
35th German Conference on Pattern Recognition (GCPR), 2013.

[C170] T. Möllerhoff, C. Nieuwenhuis, E. Toeppe and D. Cremers,
Efficient Convex Optimization for Minimal Partition Problems with Volume Constraints,
2013.

[C171] C. Kerl, J. Sturm and D. Cremers,
Dense Visual SLAM for RGB-D Cameras,

[C172] T. Naseer, J. Sturm and D. Cremers,
FollowMe: Person Following and Gesture Recognition with a Quadrocopter,

[C173] M. Klodt, J. Sturm and D. Cremers,
Scale-Aware Object Tracking with Convex Shape Constraints on RGB-D Images,
German Conference on Pattern Recognition (GCPR), Saarbrücken, Germany, September 2013.
[C174] J. Sturm, E. Bylow, F. Kahl and D. Cremers,
Dense Tracking and Mapping with a Quadrocopter,
*Unmanned Aerial Vehicle in Geomatics (UAV-g)*, Rostock, Germany, September 2013.

[C175] D. Bender, M. Schikora, J. Sturm and D. Cremers,
Graph-based bundle adjustment for INS-camera calibration,
*Unmanned Aerial Vehicle in Geomatics (UAV-g)*, Rostock, Germany, September 2013,
Best research paper award.

[C176] J. Sturm, E. Bylow, F. Kahl and D. Cremers,
CopyMe3D: Scanning and Printing Persons in 3D,
*German Conference on Pattern Recognition (GCPR)*, Saarbrücken, Germany, September 2013.

[C177] E. Rodola, T. Harada, Y. Kuniyoshi and D. Cremers,
Efficient Shape Matching using Vector Extrapolation,
2013.

[C178] J. Engel, J. Sturm and D. Cremers,
Semi-Dense Visual Odometry for a Monocular Camera,
Sydney, Australia, December 2013.

[C179] E. Rodola, A. Torsello, T. Harada, Y. Kuniyoshi and D. Cremers,
Elastic Net Constraints for Shape Matching,
Sydney, Australia, December 2013.

[C180] J. Lellmann, E. Strekalovskiy, S. Koetter and D. Cremers,
Total Variation Regularization for Functions with Values in a Manifold,
Sydney, Australia, December 2013.

[C181] C. Nieuwenhuis, E. Strekalovskiy and D. Cremers,
Proportion Priors for Image Sequence Segmentation,
Sydney, Australia, December 2013.

[C182] J. Stühmer, P. Schröder and D. Cremers,
Tree Shape Priors with Connectivity Constraints using Convex Relaxation on
General Graphs,
Sydney, Australia, December 2013, Oral Presentation.

[C183] G. Kuschk and D. Cremers,
Fast and Accurate Large-scale Stereo Reconstruction using Variational Methods,
*ICCV Workshop on Big Data in 3D Computer Vision*, Sydney, Australia, December 2013.

[C184] M. R. Oswald and D. Cremers,
A Convex Relaxation Approach to Space Time Multi-view 3D Reconstruction,
*ICCV Workshop on Dynamic Shape Capture and Analysis (4MOD)*, 2013.

[C185] F. Steinbruecker, C. Kerl, J. Sturm and D. Cremers,
Large-Scale Multi-Resolution Surface Reconstruction from RGB-D Sequences,
Sydney, Australia, 2013.

[C186] T. Naseer, J. Sturm and D. Cremers,
Interactive Person Following and Gesture Recognition with a Flying Robot,
*Proc. of the Assistance and Service Robotics Workshop (ASROB) at the IEEE Int. Conf. on Intelligent Robots and Systems (IROS)*, Nov. 2013.
All: 1

List of Publications

Driving Learning for Driving: How Introspection Improves Semantic Mapping, 
The International Symposium on Robotics Research (ISRR), 2013.

[C188] D. Cremers, E. Rodola and T. Windheuser, 
Relaxations for Minimizing Metric Distortion and Elastic Energies for 3D Shape Matching, 

[C189] M. Schadler, J. Stueckler and S. Behnke, 
Multi-resolution surfel mapping and real-time pose tracking using a continuously rotating 2D laser scanner, 

[C190] J. Stueckler and S. Behnke, 
Efficient Dense 3D Rigid-Body Motion Segmentation in RGB-D Video, 

[C191] M. McElhone, J. Stueckler and S. Behnke, 
Joint detection and pose tracking of multi-resolution surfel models in RGB-D, 

[C192] T. Fiolka, J. Stueckler, D. A. Klein, D. Schulz and S. Behnke, 
Distinctive 3D surface entropy features for place recognition., 

[C193] 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, 

[C194] J. Stueckler and S. Behnke, 
Hierarchical Object Discovery and Dense Modelling From Motion Cues in RGB-D Video, 

[C195] 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, 

[C196] L. Gorelick, F. R. Schmidt and Y. Boykov, 
Fast Trust Region for Segmentation, 
Portland, Oregon, Jun 2013.

[C197] L. Ma, T. Whelan, E. Bondarev, P. H. N. de With and J. McDonald, 
Planar simplification and texturing of dense point cloud maps, 
[C198] E. Rodola, A.M. Bronstein, A. Albarelli, F. Bergamasco and A. Torsello,
A game-theoretic approach to deformable shape matching,

[C199] F. Endres, J. Hess, N. Engelhard, J. Sturm, D. Cremers and W. Burgard,
An Evaluation of the RGB-D SLAM System,

[C200] T. Ruehr, J. Sturm, D. Pangercic, M. Beetz and D. Cremers,
A Generalized Framework for Opening Doors and Drawers in Kitchen Environ-
ments,

[C201] Dominik Joho AND Gian Diego Tipaldi AND Nikolas Engelhard AND Cyrill Stachniss
AND Wolfram Burgard,
Nonparametric Bayesian Models for Unsupervised Scene Analysis and Recon-
struction,

[C202] M. Schikora, A. Gning, L. Mihaylova, D. Cremers, W. Koch and R. Streit,
Box-Particle Intensity Filter,

[C203] M. Schikora, A. Gning, L. Mihaylova, D. Cremers and W. Koch,
Box-Particle PHD Filter for Multi-Target Tracking,
15th International Conference on Information Fusion (FUSION), Singapore, July 2012.

[C204] L. Zhang, J. Sturm, D. Cremers and D. Lee,
Real-Time Human Motion Tracking using Multiple Depth Cameras,

[C205] E. Strekalovskiy, C. Nieuwenhuis and D. Cremers,
Nonmetric Priors for Continuous Multilabel Optimization,
Firenze, Italy, Springer, October 2012.

[C206] T. Windheuser, H. Ishikawa and D. Cremers,
Generalized Roof Duality for Multi-Label Optimization: Optimal Lower
Bounds and Persistency,
Firenze, Italy, October 2012.

[C207] T. Windheuser, H. Ishikawa and D. Cremers,
QPBO [QPBO arugorizumu no tachika ni yoru hiretsu mojura enerugi saisho-
ka],
Meeting on Image Recognition and Understanding, Fukuoka, Japan, August 2012.

[C208] M. R. Oswald, E. Toeppe and D. Cremers,
Fast and Globally Optimal Single View Reconstruction of Curved Objects,
Providence, Rhode Island, 534-541, June 2012.

[C209] E. Strekalovskiy, A. Chambolle and D. Cremers,
A Convex Representation for the Vectorial Mumford-Shah Functional,
Providence, Rhode Island, June 2012.
[C210] J. Engel, J. Sturm and D. Cremers, 
Camera-Based Navigation of a Low-Cost Quadrocopter, 

[C211] J. Sturm, N. Engelhard, F. Endres, W. Burgard and D. Cremers, 
A Benchmark for the Evaluation of RGB-D SLAM Systems, 

[C212] J. Engel, J. Sturm and D. Cremers, 
Accurate Figure Flying with a Quadrocopter Using Onboard Visual and Inertial Sensing, 

[C213] J. Sturm, W. Burgard and D. Cremers, 
Evaluating Egomotion and Structure-from-Motion Approaches Using the TUM RGB-D Benchmark, 

Evaluation of DSI Imaging with Compressed Sensing under the Presence of Different Noise Levels on a Diffusion Phantom, 2012.


[C216] N. Ufer, M. Souiai and D. Cremers, 
Wehrli 2.0: An Algorithm for Tidying up Art, 

Semantic Categorization of Outdoor Scenes with Uncertainty Estimates using Multi-Class Gaussian Process Classification, 

Parsing Outdoor Scenes from Streamed 3D Laser Data Using Online Clustering and Incremental Belief Updates, 

[C219] U. Hubert, J. Stueckler and S. Behnke, 
Bayesian calibration of the hand-eye kinematics of an anthropomorphic robot, 
Proc. of the 12th IEEE-RAS Int. Conf. on Humanoid Robots (Humanoids), 618-624, November 2012.
[C220] J. Stueckler, N. Biresev and S. Behnke, 
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.

[C221] 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.

[C222] 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.

[C223] T. Fiolka, J. Stueckler, D. A. Klein, D. Schulz and S. Behnke, 
SURE: Surface Entropy for Distinctive 3D Features, 

[C224] G. M. Garcia, D. A. Klein, J. Stueckler, S. Frintrop and A. B. Cremers, 
Adaptive Multi-cue 3D Tracking of Arbitrary Objects, 

[C225] J. Stueckler and S. Behnke, 

[C226] M. Nieuwenhuisen, J. Stueckler, A. Berner, R. Klein and S. Behnke, 
Shape-Primitive Based Object Recognition and Grasping, 

[C227] J. Kläss, J. Stueckler and S. Behnke, 
Efficient Mobile Robot Navigation using 3D Surfel Grid Maps, 

[C228] J. Stueckler and S. Behnke, 
Robust Real-Time Registration of RGB-D Images using Multi-Resolution Surfel Representations, 

[C229] V. Usenko, F. Seidel, Z. Marton, D. Pangercic and M. Beetz, 
Furniture Classification using WWW CAD Models, 

[C230] F. R. Schmidt and Y. Boykov, 
Hausdorff Distance Constraint for Multi-Surface Segmentation, 

[C231] L. Gorelick, F. R. Schmidt, Y. Boykov, A. Delong and A. Ward, 
Segmentation with non-linear regional constraints via line-search cuts, 
[C232] A. Torsello, E. Rodola and A. Albarelli, 
Multiview Registration via Graph Diffusion of Dual Quaternions, 
2441-2448, 2011.

[C233] F. Bergamasco, A. Albarelli, E. Rodola and A. Torsello, 
RUNE-Tag: a High Accuracy Fiducial Marker with Strong Occlusion Resilience, 
113-120, 2011.

[C234] A. Albarelli, E. Rodola and A. Torsello, 
A Non-Cooperative Game for 3D Object Recognition in Cluttered Scenes, 
International Conference on 3D Imaging, Modeling, Processing, Visualization and Transmission (3DIMPVT), 252-259, 2011.

[C235] A. Torsello, E. Rodola and A. Albarelli, 
Sampling Relevant Points for Surface Registration, 
International Conference on 3D Imaging, Modeling, Processing, Visualization and Transmission (3DIMPVT), 290-295, 2011.

[C236] T. Windheuser, U. Schlickewei, F. R. Schmidt and D. Cremers, 
Geometrically Consistent Elastic Matching of 3D Shapes: A Linear Programming Solution, 
2011.

[C237] M. Aubry, U. Schlickewei and D. Cremers, 
Pose-Consistent 3D Shape Segmentation Based on a Quantum Mechanical Feature Descriptor, 
Frankfurt, Germany, Springer, 2011.

[C238] T. Schoenemann, S. Masnou and D. Cremers, 
On a linear programming approach to the discrete Willmore boundary value problem and generalizations, 

[C239] E. Strekalovskiy and D. Cremers, 
Total Variation for Cyclic Structures: Convex Relaxation and Efficient Minimization, 

[C240] B. Goldluecke and D. Cremers, 
Introducing Total Curvature for Image Processing, 
2011.

[C241] E. Strekalovskiy, B. Goldluecke and D. Cremers, 
Tight Convex Relaxations for Vector-Valued Labeling Problems, 
2011.

[C242] M. Aubry, K. Kolev, B. Goldluecke and D. Cremers, 
Decoupling Photometry and Geometry in Dense Variational Camera Calibration, 
2011.

[C243] E. Strekalovskiy and D. Cremers, 
Generalized Ordering Constraints for Multilabel Optimization, 
2011.
[C244] J. Hess, J. Sturm and W. Burgard,
Learning the State Transition Model to Efficiently Clean Surfaces with Mobile Manipulation Robots,
Proc. of the Workshop on Manipulation under Uncertainty at the IEEE Int. Conf. on Robotics and Automation (ICRA), Shanghai, China, May 2011.

[C245] N. Engelhard, F. Endres, J. Hess, J. Sturm and W. Burgard,
Real-time 3D visual SLAM with a hand-held camera,

Towards a benchmark for RGB-D SLAM evaluation,

[C247] C. Nieuwenhuis, E. Toeppe and D. Cremers,
Space-Varying Color Distributions for Interactive Multiregion Segmentation: Discrete versus Continuous Approaches, 177-190, 2011.

[C248] M. Klodt and D. Cremers,

[C249] M. Aubry, U. Schlickewei and D. Cremers,
The Wave Kernel Signature: A Quantum Mechanical Approach To Shape Analysis,
IEEE International Conference on Computer Vision (ICCV) - Workshop on Dynamic Shape Capture and Analysis (4DMOD), 2011.

[C250] F. Steinbruecker, J. Sturm and D. Cremers,
Real-Time Visual Odometry from Dense RGB-D Images,
Workshop on Live Dense Reconstruction with Moving Cameras at the Intl. Conf. on Computer Vision (ICCV), 2011.

Mobile Manipulation of Kitchen Containers,
Proc. of the IROS’11 Workshop on Results, Challenges and Lessons Learned in Advancing Robots with a Common Platform, San Francisco, CA, USA, 2011.

[C252] M. Schikora, M.Oispun, W. Koch and D. Cremers,
Multiple Source Localization Based on Biased Bearings Using the Intensity Filter - Approach and Experimental Results,

[C253] S. Madhogaria, M. Schikora, W. Koch and D. Cremers,
Pixel-based Classification Method for Detecting Unhealthy Regions in Leaf Images,
6th IEEE ISIF Workshop on Sensor Data Fusion: Trends, Solutions, Applications (SDF), Berlin, Germany, September 2011.
M. Schikora, W. Koch, R.L. Streit and D. Cremers,
**Sequential Monte Carlo Method for the iFilter,**
14th International Conference on Information Fusion (FUSION), Chicago, IL, USA, July 2011.

M. Oispun and M. Schikora,
**Multiple Emitter Localization Using a Realistic Airborne Array Sensor,**
14th International Conference on Information Fusion (FUSION), Chicago, IL, USA, July 2011.

M. Schikora, W. Koch and D. Cremers,
**Multi-object tracking via high accuracy optical flow and finite set statistics,**
International Conference on Acoustics, Speech and Signal Processing (ICASSP), Prag, Czech Republic, Mai 2011.

E. Toeppe, M. R. Oswald, D. Cremers and C. Rother,
**Silhouette-Based Variational Methods for Single View Reconstruction,**

M. R. Oswald, E. Toeppe, C. Nieuwenhuis and D. Cremers,
**A Survey on Geometry Recovery from a Single Image with Focus on Curved Object Reconstruction,**

J. Shin, R. Triebel and R. Siegwart,
**Unsupervised 3D Object Discovery and Categorization for Mobile Robots,**

J. Maye, R. Triebel, L. Spinello and R. Siegwart,
**Bayesian On-line Learning of Driving Behaviors,**
2011.

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

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.

J. Stueckler, R. Steffens, D. Holz and S. Behnke,
**Real-Time 3D Perception and Efficient Grasp Planning for Everyday Manipulation Tasks,**
Proc. of the European Conf. on Mobile Robots (ECMR), 177-182, 2011.

J. Stueckler and S. Behnke,
**Compliant Task-Space Control with Back-Drivable Servo Actuators,**
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,
Proc. of the IEEE Int. Conf. on Robotics and Automation (ICRA), 1205-1210, May 2011.

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.

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

F. R. Schmidt, H. Ackermann and B. Rosenhahn,
Multilinear Model Estimation with L2-Regularization,

A. Delong, L. Gorelick, F. R. Schmidt, O. Veksler and Y. Boykov,
Interactive Segmentation with Super-Labels,
20th International Conference on Pattern Recognition (ICPR), 57-60, 2010.

A. Albarelli, E. Rodola and A. Torsello,
Robust Camera Calibration using Inaccurate Targets, 2010.

E. Rodola, A. Albarelli and A. Torsello,
A Game-Theoretic Approach to Robust Selection of Multi-View Point Correspondence,
20th International Conference on Pattern Recognition (ICPR), 57-60, 2010.

A. Albarelli, E. Rodola, A. Cavallarin and A. Torsello,
Robust Figure Extraction on Textured Background: a Game-Theoretic Approach,

E. Rodola, A. Albarelli and A. Torsello,
A Game-Theoretic Approach to the Enforcement of Global Consistency in Multi-View Feature Matching,

A. Albarelli, E. Rodola and A. Torsello,
A Game-Theoretic Approach to Fine Surface Registration without Initial Motion Estimation,

A. Albarelli, E. Rodola and A. Torsello,
Robust Game-Theoretic Inlier Selection for Bundle Adjustment,
5th International Symposium on 3D Data Processing, Visualization and Transmission (3DPVT), 2010, Best Student Paper Award.

A. Albarelli, E. Rodola and A. Torsello,
Loosely Distinctive Features for Robust Surface Alignment,
519-532, 2010.
[C277] M. Schikora, A. Schikora, K.-H. Kogel, W. Koch and D. Cremers, 
Probabilistic Classification of Disease Symptoms caused by Salmonella on Arabidopsis Plants, 
*5th IEEE ISIF Workshop on Sensor Data Fusion: Trends, Solutions, Applications (SDF)*, Leipzig, Germany, September 2010.

[C278] M. Schikora, D. Bender, D. Cremers and W. Koch, 
Passive Multi-Object Localization and Tracking Using Bearing Data, 

[C279] M. Schikora, D. Bender, W. Koch and D. Cremers, 
Multi-target multi-sensor localization and tracking using passive antenna and optical sensors on UAVs, 

[C280] E. Toeppe, M. R. Oswald, D. Cremers and C. Rother, 
Image-based 3D Modeling via Cheeger Sets, 
Queenstown, New Zealand, 53-64, November 2010, Received Honorable Mention Award.

[C281] J. Stühmer, S. Gumhold and D. Cremers, 
Real-Time Dense Geometry from a Handheld Camera, 
Darmstadt, Germany, 11-20, September 2010.

[C282] J. Stühmer, S. Gumhold and D. Cremers, 
Parallel Generalized Thresholding Scheme for Live Dense Geometry from a Handheld Camera, 
*ECCV Workshop on Computer Vision on GPUs (CVGPU)*, Heraklion, Greece, September 2010.

[C283] B. Goldluecke and D. Cremers, 
An Approach to Vectorial Total Variation based on Geometric Measure Theory, 
2010.

[C284] B. Goldluecke and D. Cremers, 
Convex Relaxation for Multilabel Problems with Product Label Spaces, 
2010.

[C285] C. Nieuwenhuis and D. Kondermann, 
Complex Motion Models for Simple Optical Flow Estimation, 

[C286] C. Nieuwenhuis, B. Berkels and M. Rumpf, 
Interactive Motion Segmentation, 

[C287] J. Sturm, K. Konolige, C. Stachniss and W. Burgard, 
3D Pose Estimation, Tracking and Model Learning of Articulated Objects from Dense Depth Video using Projected Texture Stereo, 
[C288] J. Sturm, K. Konolige, C. Stachniss and W. Burgard,  
Vision-based Detection for Learning Articulation Models of Cabinet Doors and Drawers in Household Environments,  

[C289] S. Chitta, M. Piccoli and J. Sturm,  
Tactile Object Class and Internal State Recognition for Mobile Manipulation,  

[C290] J. Sturm, A. Jain, C. Stachniss, C. C. Kemp and W. Burgard,  
Operating Articulated Objects Based on Experience,  

[C291] R. Kaestner, N. Engelhard, R. Triebel and R. Siegwart,  
A Bayesian Approach to Learning 3D Representations of Dynamic Environments,  

[C292] L. Spinello, R. Triebel, D. Vasquez, K. Arras and R Siegwart,  
Exploiting Repetitive Object Patterns for Model Compression and Completion,  

[C293] R. Triebel, J. Shin and R. Siegwart,  
Segmentation and Unsupervised Part-based Discovery of Repetitive Objects,  

[C294] L. Spinello, K. O. Arras, R. Triebel and R. Siegwart,  
A Layered Approach to People Detection in 3D Range Data,  
special track on Physically Grounded AI of AAAI, 2010.

[C295] J. Shin, R. Triebel and R. Siegwart,  
Unsupervised Discovery of Repetitive Objects,  
2010.

[C296] J. Maye, L. Spinello, R. Triebel and R. Siegwart,  
Inferring the Semantics of Direction Signs in Public Places,  
2010.

[C297] K. Gräve, 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.

[C298] J. Stueckler and S. Behnke,  
Combining depth and color cues for scale- and viewpoint-invariant object segmentation and recognition using Random Forests,  
Proc. of the IEEE/RSJ Int. Conf. on Intelligent Robots and Systems (IROS), 4566-4571, October 2010.
All: 1

List of Publications

[C299] J. Stueckler and S. Behnke,
Improving People Awareness of Service Robots by Semantic Scene Knowledge,
del Solar, Javier Ruiz, Chown, Eric, Plöger and Paul-Gerhard(Eds.), RobuCup, Springer,

[C300] D. Holz, R. Schnabel, D. Droeschel, J. Stueckler and S. Behnke,
Towards Semantic Scene Analysis with Time-of-flight Cameras,
del Solar, Javier Ruiz, Chown, Eric, Plöger and Paul-Gerhard(Eds.), RobuCup, Springer,

[C301] 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, Plöger and Paul-Gerhard(Eds.), RobuCup, Springer,

[C302] K. Gräve, J. Stueckler and S. Behnke,
Learning Motion Skills from Expert Demonstrations and Own Experience using Gaussian Process Regression,

[C303] M. Nieuwenhuisen, J. Stueckler and S. Behnke,
Intuitive Multimodal Interaction for Domestic Service Robots,

[C304] 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.

[C305] D. Droeschel, D. Holz, J. Stueckler and S. Behnke,
Using Time-of-Flight cameras with active gaze control for 3D collision avoidance,

[C306] Mösenlechner, Lorenz, Demmel, Nikolaus, Beetz and Michael,
Becoming action-aware through reasoning about logged plan execution traces,

[C307] A. Albarelli, E. Rodola, S. Rota Bulo and A. Torsello,
Fast 3D surface reconstruction by unambiguous compound phase coding,
the 2009 IEEE International Workshop on 3D Digital Imaging and Modeling (3DIM),

[C308] M. R. Oswald, E. Toeppe, K. Kolev and D. Cremers,
Non-Parametric Single View Reconstruction of Curved Objects using Convex Optimization,
Jena, Germany, 171-180, September 2009, Received a DAGM Paper Award.

[C309] F. R. Schmidt and D. Cremers,
A Closed-Form Solution for Image Sequence Segmentation with Dynamical Shape Priors,
Jena, Germany, September 2009.
[C310] F. R. Schmidt, E. Toeppe and D. Cremers, 
Efficient Planar Graph Cuts with Applications in Computer Vision, 
Miami, Florida, 351-356, June 2009, Received a CVPR Doctoral Spotlight Award.

[C311] T. Pock, A. Chambolle, H. Bischof and D. Cremers, 
A Convex Relaxation Approach for Computing Minimal Partitions, 

[C312] A. Wedel, C. Rabe, A. Meissner, U. Franke and D. Cremers, 
Detection and Segmentation of Independently Moving Objects from Dense 
Scene Flow, 

[C313] B. Goldluecke and D. Cremers, 
A Superresolution Framework for High-Accuracy Multiview Reconstruction, 
Jena, Germany, 2009, Received DAGM Best Paper Award.

[C314] B. Goldluecke and D. Cremers, 
Superresolution Texture Maps for Multiview Reconstruction, 
Kyoto, Japan, 2009.

[C315] A. Sellent, M. Eisemann, B. Goldluecke, T. Pock, D. Cremers and M. Magnor, 
Variational Optical Flow from Alternate Exposure Images, 
135-143, 2009.

[C316] T. Pock, D. Cremers, H. Bischof and A. Chambolle, 
An Algorithm for Minimizing the Piecewise Smooth Mumford-Shah Functional, 
Kyoto, Japan, 2009.

[C317] A. Wedel, D. Cremers, T. Pock and H. Bischof, 
Structure- and Motion-adaptive Regularization for High Accuracy Optic Flow, 
Kyoto, Japan, 2009.

[C318] T. Schoenemann, F. Kahl and D. Cremers, 
Curvature Regularity for Region-based Image Segmentation and Inpainting: 
A Linear Programming Relaxation, 
Kyoto, Japan, 2009.

[C319] T. Windheuser, T. Schoenemann and D. Cremers, 
Beyond Connecting the Dots: A Polynomial-time Algorithm for Segmentation 
and Boundary Estimation with Imprecise User Input, 
Kyoto, Japan, 2009.

[C320] F. Steinbruecker, T. Pock and D. Cremers, 
Large Displacement Optical Flow Computation without Warping, 
Kyoto, Japan, 2009.

[C321] D. Mitzel, T. Pock, T. Schoenemann and D. Cremers, 
Video Super Resolution using Duality Based TV-L1 Optical Flow, 
Jena, Germany, 2009.

[C322] B. Berkels, C. Nieuwenhuis, C. Garbe and M. Rumpf, 
Reconstructing Optical Flow Fields by Motion Inpainting, 


[C335] D. Engel, L. Spinello, R. Triebel, C. Curio, R. Siegwart and H. Bülthoff,
Medial Features for Superpixel Segmentation,

[C336] J. Stueckler and S. Behnke,
Integrating indoor mobility, object manipulation, and intuitive interaction for
domestic service tasks,
Proc. of the IEEE-RAS Int. Conf. on Humanoid Robots (Humanoids), 506-513, December
2009.

[C337] J. Stueckler, M. Schreiber and S. Behnke,
Dynamaid, an Anthropomorphic Robot for Research on Domestic Service Ap-
plications,

[C338] T. Schoenemann, F. R. Schmidt and D. Cremers,
Image Segmentation with Elastic Shape Priors via Global Geodesics in Product
Spaces,

[C339] T. Pock, T. Schoenemann, G. Graber, H. Bischof and D. Cremers,
A Convex Formulation of Continuous Multi-Label Problems,
Marseille, France, October 2008.

Efficient Dense Scene Flow from Sparse or Dense Stereo Data,
Marseille, France, October 2008.

[C341] A. Wedel, T. Pock, J. Braun, U. Franke and D. Cremers,
Duality TV-L1 Flow with Fundamental Matrix Prior,

[C342] M. Klodt, T. Schoenemann, K. Kolev, M. Schikora and D. Cremers,
An Experimental Comparison of Discrete and Continuous Shape Optimization
Methods,
European Conference on Computer Vision (ECCV), Marseille, France, October 2008.

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