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[C21] D. Schubert, N. Demmel, L. von Stumberg, V. Usenko and D. Cremers,  
*Rolling-Shutter Modelling for Visual-Inertial Odometry*,  
November 2019.

[C22] E. Laude, T. Wu and D. Cremers,  
*Optimization of Inf-Convolution Regularized Nonconvex Composite Problems*,  
*International Conference on Artificial Intelligence and Statistics (AISTATS)*, 2019.

[C23] T. Möllenhoff and D. Cremers,  

[C24] T. Möllenhoff and D. Cremers,  
*Flat Metric Minimization with Applications in Generative Modeling*,  

[C25] T. Frerix and J. Bruna,  
*Approximating Orthogonal Matrices with Effective Givens Factorization*,  
[C26] Q. Khan, P. Wenzel, D. Cremers and L. Leal-Taixe,  
Towards Generalizing Sensorimotor Control Across Weather Conditions,  

[C27] M. Moeller, T. Möllenhoff and D. Cremers,  
Controlling Neural Networks via Energy Dissipation,  
International Conference on Computer Vision (ICCV), Seoul, South Korea, 10 2019.

[C28] S. Weiss, R. Maier, R. Westermann, D. Cremers and N. Thuerey,  
Sparse Surface Constraints for Combining Physics-based Elasticity Simulation and Correspondence-Free Object Reconstruction,  

[C29] P. Brechet, T. Wu, T. Möllenhoff and D. Cremers,  
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[C30] F. Steidle, W. Stürzl and R. Triebel,  
Visual-inertial sensor fusion with a bio-inspired polarization compass for navigation of MAVs,  
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[C31] J. Feng, M. Durner, Z.-C. Marton, F. Balint-Benczedi and R. Triebel,  
Introspective Robot Perception using Smoothed Predictions from Bayesian Neural Networks,  

Shape Correspondence with Isometric and Non-Isometric Deformations,  
Silvia Biasotti, Guillaume Lavoué and Remco C. Veltkamp(Eds.), 12th Eurographics Workshop on 3D Object Retrieval, 3DOR@Eurographics 2019, Genoa, Italy, May 5-6, 2019, Eurographics Association, 111-119, 2019.

[C33] C. Hazirbas, S. G. Soyer, M. C. Staab, L. Leal-Taixe and D. Cremers,  
Deep Depth From Focus,  
Asian Conference on Computer Vision (ACCV), December 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,  

Discrete-Continuous ADMM for Transductive Inference in Higher-Order MRFs,  
2018.
[C36] E. Laude, T. Wu and D. Cremers, 
**A Nonconvex Proximal Splitting Algorithm under Moreau-Yosida Regularization**,  
*International Conference on Artificial Intelligence and Statistics (AISTATS)*, 2018.

[C37] T. Möllenhoff, Z. Ye, T. Wu and D. Cremers, 
**Combinatorial Preconditioners for Proximal Algorithms on Graphs**,  
*International Conference on Artificial Intelligence and Statistics (AISTATS)*, 2018.

[C38] V. Golkov, A. Vasilev, F. Pasa, I. Lipp, W. Boubaker, E. Sgarlata, F. Pfeiffer, V. Tomassini, D. K. Jones and D. Cremers,  
**q-Space Novelty Detection in Short Diffusion MRI Scans of Multiple Sclerosis**, 2018.


[C40] B. T. Do, V. Golkov, G. E. Gürel and D. Cremers,  

[C41] P. Haeusser, J. Plapp, V. Golkov, E. Aljalbout and D. Cremers,  
**Associative Deep Clustering - Training a Classification Network with no Labels**,  
*Proc. of the German Conference on Pattern Recognition (GCPR)*, October 2018.

[C42] T. Frerix, T. Möllenhoff, M. Moeller and D. Cremers,  
**Proximal Backpropagation**,  

[C43] L. von Stumberg, V. Usenko and D. Cremers,  
**Direct Sparse Visual-Inertial Odometry using Dynamic Marginalization**,  
May 2018.

[C44] D. Schubert, T. Goll, N. Demmel, V. Usenko, J. Stueckler and D. Cremers,  
**The TUM VI Benchmark for Evaluating Visual-Inertial Odometry**,  
October 2018.

[C45] X. Gao, R. Wang, N. Demmel and D. Cremers,  
**LDSO: Direct Sparse Odometry with Loop Closure**,  
*iros*, October 2018.

[C46] Z. Lähner, D. Cremers and T. Tung,  
**DeepWrinkles: Accurate and Realistic Clothing Modeling**,  
September 2018, *Oral Presentation*.

[C47] D. Schubert, N. Demmel, V. Usenko, J. Stueckler and D. Cremers,  
**Direct Sparse Odometry With Rolling Shutter**,  
September 2018, *Oral Presentation*. 

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[C48] V. Usenko, N. Demmel and D. Cremers, 
**The Double Sphere Camera Model**, 

[C49] 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**.

[C50] M. Denninger and R. Triebel, 
**Persistent Anytime Learning of Objects from Unseen Classes**, 
Madrid, Spain, Oct. 2018, **Best Cognitive Robotics Paper Finalist**.

[C51] I. Grixa, P. Schulz, W. Stürzl and R. Triebel, 
**Appearance-Based Along-Route Localization for Planetary Missions**, 

[C52] 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**, 

[C54] C. Nissler, M. Durner, Z.-C. Marton and R. Triebel, 
**Simultaneous Calibration and Mapping**, 

[C55] 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.

[C56] R. Henschel, L. Leal-Taixé, D. Cremers and B. Rosenhahn, 
**Fusion of Head and Full-Body Detectors for Multi-Object Tracking**, 

[C57] C. Sommer and D. Cremers, 
**Joint Representation of Primitive and Non-primitive Objects for 3D Vision**, 

[C58] Csaba Domokos, Frank R. Schmidt and Daniel Cremers, 
**MRF Optimization with Separable Convex Prior on Partially Ordered Labels**, 
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[C70] V. Usenko, L. von Stumberg, A. Pangeric and D. Cremers, 
Real-Time Trajectory Replanning for MAVs using Uniform B-splines and a 
3D Circular Buffer, 
Vancouver, Canada, Sep 2017.

[C71] T. Meinhardt, M. Moeller, C. Hazirbas and D. Cremers, 
Learning Proximal Operators: Using Denoising Networks for Regularizing Inverse Imaging Problems, 
October 2017.

One-Shot Video Object Segmentation, 
Honolulu, USA, 2017.

[C73] Queau, Y., Melou, J., Durou, J.-D., Cremers and D., 
Dense Multi-view 3D-reconstruction Without Dense Correspondences, 

[C74] K. Kurach, S. Gelly, M. Jastrzebski, P. Haeusser, O. Teytaud, D. Vincent and O. Bousquet, 
Better Text Understanding Through Image-To-Text Transfer, 

[C75] P. Haeusser, T. Frerix, A. Mordvintsev and D. Cremers, 
Associative Domain Adaptation, 
2017.

Efficient Deformable Shape Correspondence via Kernel Matching, 
International Conference on 3D Vision (3DV), Qingdao, China, October 2017, Oral Presentation.

[C77] V. Golyanik, K. Kim, R. Maier, M. Niessner, D. Stricker and J. Kautz, 
Multiframe Scene Flow with Piecewise Rigid Motion, 
International Conference on 3D Vision (3DV), Qingdao, China, October 2017, Spotlight Presentation.

[C78] 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.

[C79] R. Wang, M. Schwörer and D. Cremers, 
Stereo DSO: Large-Scale Direct Sparse Visual Odometry with Stereo Cameras, 
International Conference on Computer Vision (ICCV), Venice, Italy, October 2017.

[C80] Monika Ullrich, Haider Ali, Maximilian Durner, Zoltan-Csaba Marton and Rudolph Triebel, 
Selecting CNN Features for Online Learning of 3D Objects, 

[C81] 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.


[C93] 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.

[C94] Z. Lähner, E. Rodola, F. R. Schmidt, M. M. Bronstein and D. Cremers, 
Efficient Globally Optimal 2D-to-3D Deformable Shape Matching, 
May 2016.

[C95] A. Narr, R. Triebel and D. Cremers, 
Stream-based Active Learning for Efficient and Adaptive Classification of 3D Objects, 
May 2016.

SHREC16: Matching of Deformable Shapes with Topological Noise, 
May 2016.

[C97] L. Cosmo, E. Rodola, M. M. Bronstein, A. Torsello, D. Cremers and Y. Sahillioglu, 
SHREC16: Partial Matching of Deformable Shapes, 
May 2016.

[C98] T. Möllenhoff, E. Laude, M. Moeller, J. Lellmann and D. Cremers, 
Sublabel-Accurate Relaxation of Nonconvex Energies, 
2016.

[C99] L. Ma, C. Kerl, J. Stueckler and D. Cremers, 
CPA-SLAM: Consistent Plane-Model Alignment for Direct RGB-D SLAM, 
May 2016.

[C100] J. Engel, V. Usenko and D. Cremers, 
A Photometrically Calibrated Benchmark For Monocular Visual Odometry, 

[C101] J. Engel, V. Koltun and D. Cremers, 
Direct Sparse Odometry, 

[C102] E. Laude, T. Möllenhoff, M. Moeller, J. Lellmann and D. Cremers, 
Sublabel-Accurate Convex Relaxation of Vectorial Multilabel Energies, 
October 2016.

[C103] T. Windheuser and D. Cremers, 
A Convex Solution to Spatially-Regularized Correspondence Problems, 
October 2016.

[C104] S. Sharifzadeh, I. Chiotellis, R. Triebel and D. Cremers, 
Learning to Drive using Inverse Reinforcement Learning and Deep Q-Networks, 
NIPS Workshops, December 2016.

[C105] D. Klostermann, A. Osep, J. Stueckler and B. Leibe, 
Unsupervised Learning of Shape-Motion Patterns for Objects in Urban Street Scenes, 
British Machine Vision Conference (BMVC), 2016.
[C106] D. Kochanov, A. Osep, J. Stueckler and B. Leibe, 
Scene Flow Propagation for Semantic Mapping and Object Discovery in Dy-
namic Street Scenes, 

[C107] F. Engelmann, J. Stueckler and B. Leibe, 
Joint Object Pose Estimation and Shape Reconstruction in Urban Street Scen-
es Using 3D Shape Priors, 
Proc. of the German Conference on Pattern Recognition (GCPR), 2016.

[C108] L. Cosmo, A. Albarelli, F. Bergamasco, A. Torsello, E. Rodolà and D. Cremers, 
A game-theoretical approach for joint matching of multiple feature throughout unordered images, 
23rd International Conference on Pattern Recognition, ICPR 2016, Cancún, Mexico, De-

[C109] N. Mayer, E. Ilg, P. Häusser, P. Fischer, D. Cremers, A. Dosovitskiy and T. Brox, 
A Large Dataset to Train Convolutional Networks for Disparity, Optical Flow, and Scene Flow Estimation, 

[C110] D. Bender, D. Cremers and W. Koch, 
A position free boresight calibration for INS-camera systems, 

[C111] D. Bender, F. Rouatbi, M. Schikora, D. Cremers and W. Koch, 
Scaling the world of monocular SLAM with INS-measurements for UAS naviga-
tion, 
19th International Conference on Information Fusion, FUSION 2016, Heidelberg, Germa-

[C112] M. Moeller, J. Diebold, G. Gilboa and D. Cremers, 
Learning Nonlinear Spectral Filters for Color Image Reconstruction, 
2015.

[C113] J. Diebold, N. Demmel, C. Hazirbas, M. Möller and D. Cremers, 
Interactive Multi-label Segmentation of RGB-D Images, 
2015.

[C114] C. Hazirbas, J. Diebold and D. Cremers, 
Optimizing the Relevance-Redundancy Tradeoff for Efficient Semantic Seg-
mentation, 
2015.

[C115] A. Kanezaki, E. Rodola and T. Harada, 
RGB-D [Graph matching gakushuu wo mochiita RGB-D gazou kara no buttai kenshutsu] - Learning graph matching for object detection from RGB-D images, 
20 - Robotics Symposia (RS), Karuizawa, Japan, March 2015.

[C116] T. Möllenhoff, E. Strekalovskiy, M. Möller and D. Cremers, 
Low Rank Priors for Color Image Regularization, 
2015.
[C117] 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.

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A Fast Projection Method for Connectivity Constraints in Image Segmentati-
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X.-C. Tai, E. Bae, T. F. Chan and M. Lysaker(Eds.), , 2015.

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Analysis of Surface Parametrizations for Modern Photometric Stereo Mode-
ing, 
International Conference on Quality Control by Artificial Vision (QCAV), 2015.

[C120] 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.

[C121] D. Mund, R. Triebel and D. Cremers, 
Active Online Confidence Boosting for Efficient Object Classification, 

Liu, V. Golkov, M. Czisch, P. Saemann, M.I. Menzel and B.H. Menze, 
Using Diffusion and Structural MRI for the Automated Segmentation of Multiple Sclerosis Lesions, 
2015.

[C123] 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.

[C124] A. Menini, V. Golkov and F. Wiesinger, 
Free-Breathing, Self-Navigated RUFIS Lung Imaging with Motion Compensa-
ted Image Reconstruction, 
2015.

[C125] 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.

[C126] 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.
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SPENCER: A Socially Aware Service Robot for Passenger Guidance and Help in Busy Airports,

[C128] D. Holz, A. Topalidou-Kyniazopoulou, J. Stueckler and S. Behnke,
Real-Time Object Detection, Localization and Verification for Fast Robotic Depalletizing,
2015.

[C129] J. Engel, J. Stueckler and D. Cremers,
Large-Scale Direct SLAM with Stereo Cameras,
2015.

[C130] D. Caruso, J. Engel and D. Cremers,
Large-Scale Direct SLAM for Omnidirectional Cameras,
2015.

[C131] Y. Tao, R. Triebel and D. Cremers,
Semi-supervised Online Learning for Efficient Classification of Objects in 3D Data Streams,
2015.

[C132] 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.

[C133] M. Jaimez, M. Souiai, J. Stueckler, J. Gonzalez-Jimenez and D. Cremers,
Motion Cooperation: Smooth Piece-Wise Rigid Scene Flow from RGB-D Images,

[C134] E. Rodola, M. Moeller and D. Cremers,
Point-wise Map Recovery and Refinement from Functional Correspondence,
Aachen, Germany, 2015, Received the Best Paper Award.

[C135] C. Kerl, J. Stueckler and D. Cremers,
Dense Continuous-Time Tracking and Mapping with Rolling Shutter RGB-D Cameras,
Santiago, Chile, 2015.

[C136] M. Souiai, M. R. Oswald, Y. Kee, J. Kim, M. Pollefeys and D. Cremers,
Entropy Minimization for Convex Relaxation Approaches,
Santiago, Chile, 2015.

[C137] 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.

[C138] N. Nagaraja, F. R. Schmidt and T. Brox,
Video Segmentation with Just a Few Strokes,
Santiago, Chile, Dec 2015.
[C139] J. Stühmer, S. Nowozin, A. Fitzgibbon, R. Szeliski, T. Perry, S. Acharya, D. Cremers and J. Shotton, 
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 De-noising by Means of Total Generalized Variation Regularization, 
2014.

[C143] 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.

[C145] D. Weikersdorfer, D. B. Adrian, D. Cremers and J. Conrad, 
Event-based 3D SLAM with a depth-augmented dynamic vision sensor, 
2014.

[C146] F. Steinbrücker, J. Sturm and D. Cremers, 
Volumetric 3D Mapping in Real-Time on a CPU, 
Hongkong, China, 2014.

[C147] E. Rodola, S. Rota Bulo, T. Windheuser, M. Vestner and D. Cremers, 
Dense Non-Rigid Shape Correspondence Using Random Forests, 
2014.

[C148] Y. Kee, M. Souiai, D. Cremers and J. Kim, 
Sequential Convex Relaxation for Mutual-Information-Based Unsupervised Figure-Ground Segmentation, 
2014.

[C149] H. Alvarez, L.M. Paz, J. Sturm and D. Cremers, 
Collision Avoidance for Quadrotors with a Monocular Camera, 

[C150] J. Engel, T. Schöps and D. Cremers, 
LSD-SLAM: Large-Scale Direct Monocular SLAM, 
September 2014, Oral Presentation.
[C151] T. Schöps, J. Engel and D. Cremers,  
Semi-Dense Visual Odometry for AR on a Smartphone,  
September 2014, Best Short Paper Award.

[C152] T. Windheuser, M. Vestner, E. Rodola, R. Triebel and D. Cremers,  
Optimal Intrinsic Descriptors for Non-Rigid Shape Analysis,  
2014.

[C153] 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.

[C154] 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.

[C155] 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.

[C156] M. R. Oswald and D. Cremers,  
Surface Normal Integration for Convex Space-time Multi-view Reconstruction,  
2014.

[C157] C. Nieuwenhuis, S. Hawe, M. Kleinsteuber and D. Cremers,  
Co-Sparse Textural Similarity for Interactive Segmentation,  
2014.

[C158] M. R. Oswald, J. Stühmer and D. Cremers,  
Generalized Connectivity Constraints for Spatio-temporal 3D Reconstruction,  

[C159] E. Strekalovskiy and D. Cremers,  
Real-Time Minimization of the Piecewise Smooth Mumford-Shah Functional,  

[C160] A. Kanezaki, E. Rodola and T. Harada,  
RGB-D [RGB-D gazou kara no buttai kenshutsu ni okeru taiou tenshuugou ruijido no gakushuu],  
32 - *The Robotics Society of Japan (RSJ)*, Fukuoka, Japan, September 2014,  
2015 Encouragement Award.

[C161] A. Kanezaki, E. Rodola, D. Cremers and T. Harada,  
[Taiou tenshuugou ruijido gakushuu wo mochiita goutai-higoutai buttai kenshutsu],  

[C162] 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 (NOR-DIA), 2014.

[C163] O. Dunkley, J. Engel, J. Sturm and D. Cremers,  
Visual-Inertial Navigation for a Camera-Equipped 25g Nano-Quadrotor,  
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[C164] 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.

[C165] S. Debnath, S. S. Baishya, R. Triebel, V. Dutt and D. Cremers, 
Environment-adaptive Learning: How Clustering Helps to Obtain Good Training Data, 

[C166] A. Kanezaki, E. Rodola, D. Cremers and T. Harada, 
Learning Similarities for Rigid and Non-Rigid Object Detection, 

[C167] D. Bender, M. Schikora, J. Sturm and D. Cremers, 
INS-Camera Calibration without Ground Control Points, 

[C168] C. Kerl, M. Souiai, J. Sturm and D. Cremers, 
Towards Illumination-invariant 3D Reconstruction using ToF RGB-D Cameras, 

[C169] J. Stueckler and S. Behnke, 
Adaptive Tool-Use Strategies for Anthropomorphic Service Robots, 

[C170] D. Droeschel, J. Stueckler and S. Behnke, 
Local Multi-Resolution Surfels Grids for MAV Motion Estimation and 3D Mapping, 

[C171] 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.

[C172] J. Stueckler and S. Behnke, 
Efficient deformable registration of multi-resolution surfel maps for object manipulation skill transfer, 

[C173] 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.
[C174] M. Schwarz, J. Stueckler and S. Behnke,
Mobile Teleoperation Interfaces with Adjustable Autonomy for Personal Service Robots,

[C175] F. R. Schmidt, T. Windheuser, U. Schlickewei and D. Cremers,
Dense Elastic 3D Shape Matching,

[C176] Bergbauer, Julia, Tari and Sibel,
Wimmelbild Analysis with Approximate Curvature Coding Distance Images,

[C177] Bergbauer, Julia, Tari and Sibel,
Top-down visual search in Wimmelbild,

[C178] F. Bergamasco, A. Albarelli, E. Rodola and A. Torsello,
Can a fully unconstrained imaging model be applied effectively to central cameras?,
2013.

[C179] M. Souiai, C. Nieuwenhuis, E. Strekalovskiy and D. Cremers,
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ICCV Workshop on Graphical Models for Scene Understanding, 2013.

[C180] 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.

[C181] 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.

[C182] 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.

[C183] V. Golkov, M.I. Menzel, T. Sprenger, A. Menini, D. Cremers and J.I. Sperl,
Reconstruction, Regularization, and Quality in Diffusion MRI Using an Example of Accelerated Diffusion Spectrum Imaging,
16th Annual Meeting of the German Chapter of the ISMRM, 2013, Oral Presentation.

[C184] 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.
SNR-dependent Quality Assessment of Compressed-Sensing-Accelerated Diffusion Spectrum Imaging Using a Fiber Crossing Phantom,  
2013.

Phase Sensitive Reconstruction in Diffusion Spectrum Imaging Enabling Velocity Encoding and Unbiased Noise Distribution,  
2013.

Noise Reduction in Accelerated Diffusion Spectrum Imaging through Integration of SENSE Reconstruction into Joint Reconstruction in Combination with q-Space Compressed Sensing,  
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[C188] C. Kerl, J. Sturm and D. Cremers, 
Robust Odometry Estimation for RGB-D Cameras, 
May 2013, Best Vision Paper Award - Finalist.

[C189] 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, 

[C191] H. Grimmett, R. Paul, R. Triebel and I. Posner, 
Knowing When We Don't Know: Introspective Classification for Mission-Critical Decision Making, 

[C192] D. Weikershöfer, A. Schick and D. Cremers, 
Depth-Adaptive Supervoxels for RGB-D Video Segmentation,  
2013.

[C193] 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, 


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.

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.

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.

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[C207] E. Rodola, T. Harada, Y. Kuniyoshi and D. Cremers,
Efficient Shape Matching using Vector Extrapolation,
2013.

[C208] J. Engel, J. Sturm and D. Cremers,
Semi-Dense Visual Odometry for a Monocular Camera,
Sydney, Australia, December 2013.

[C209] E. Rodola, A. Torsello, T. Harada, Y. Kuniyoshi and D. Cremers,
Elastic Net Constraints for Shape Matching,
Sydney, Australia, December 2013.

[C210] J. Lellmann, E. Strekalovskiy, S. Koetter and D. Cremers,
Total Variation Regularization for Functions with Values in a Manifold,
Sydney, Australia, December 2013.

[C211] C. Nieuwenhuis, E. Strekalovskiy and D. Cremers,
Proportion Priors for Image Sequence Segmentation,
Sydney, Australia, December 2013.

[C212] 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.

[C213] 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.

[C214] 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 (4DMOD), 2013.

[C215] F. Steinbruecker, C. Kerl, J. Sturm and D. Cremers,
Large-Scale Multi-Resolution Surface Reconstruction from RGB-D Sequences,
Sydney, Australia, 2013.

[C216] T. Naseer, J. Sturm and D. Cremers,
Interactive Person Following and Gesture Recognition with a Flying Robot,
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Driven Learning for Driving: How Introspection Improves Semantic Mapping,
The International Symposium on Robotics Research (ISRR), 2013.

[C218] D. Cremers, E. Rodola and T. Windheuser,
Relaxations for Minimizing Metric Distortion and Elastic Energies for 3D Shape Matching,
M. Schadler, J. Stueckler and S. Behnke,
Multi-resolution surfel mapping and real-time pose tracking using a continuously rotating 2D laser scanner,

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

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

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

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,

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

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,

L. Gorelick, F. R. Schmidt and Y. Boykov,
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Portland, Oregon, Jun 2013.

L. Ma, T. Whelan, E. Bondarev, P. H. N. de With and J. McDonald,
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E. Rodola, A.M. Bronstein, A. Albarelli, F. Bergamasco and A. Torsello,
A game-theoretic approach to deformable shape matching,

F. Endres, J. Hess, N. Engelhard, J. Sturm, D. Cremers and W. Burgard,
An Evaluation of the RGB-D SLAM System,
[C230] T. Ruehr, J. Sturm, D. Pangeric, M. Beetz and D. Cremers,
A Generalized Framework for Opening Doors and Drawers in Kitchen Environments,

[C231] Dominik Joho AND Gian Diego Tipaldi AND Nikolas Engelhard AND Cyrill Stachniss
AND Wolfram Burgard,
Nonparametric Bayesian Models for Unsupervised Scene Analysis and Reconstruction,

[C232] M. Schikora, A. Gning, L. Mihaylova, D. Cremers, W. Koch and R. Streit,
Box-Particle Intensity Filter,

[C233] M. Schikora, A. Gning, L. Mihaylova, D. Cremers and W. Koch,
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[C234] L. Zhang, J. Sturm, D. Cremers and D. Lee,
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[C235] E. Strekalovskiy, C. Nieuwenhuis and D. Cremers,
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[C236] T. Windheuser, H. Ishikawa and D. Cremers,
Generalized Roof Duality for Multi-Label Optimization: Optimal Lower Bounds andPersistency,
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[C239] E. Strekalovskiy, A. Chambolle and D. Cremers,
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Providence, Rhode Island, June 2012.

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Camera-Based Navigation of a Low-Cost Quadrocopter,

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A Benchmark for the Evaluation of RGB-D SLAM Systems,
[C242] J. Engel, J. Sturm and D. Cremers, 
Accurate Figure Flying with a Quadrocopter Using Onboard Visual and Inertial Sensing, 

[C243] 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.

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[C246] N. Ufer, M. Souiai and D. Cremers, 
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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, 

[C249] 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.

[C250] J. Stueckler, N. Biros 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.

[C251] 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.
[C252] S. Muszynski, J. Stueckler and S. Behnke,  
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SURE: Surface Entropy for Distinctive 3D Features,  

[C254] G. M. Garcia, D. A. Klein, J. Stueckler, S. Frintrop and A. B. Cremers,  
Adaptive Multi-cue 3D Tracking of Arbitrary Objects,  

[C255] J. Stueckler and S. Behnke,  
Model Learning and Real-Time Tracking Using Multi-Resolution Surfel Maps,  
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[C256] M. Nieuwenhuisen, J. Stueckler, A. Berner, R. Klein and S. Behnke,  
Shape-Primitive Based Object Recognition and Grasping,  

[C257] J. Kläss, J. Stueckler and S. Behnke,  
Efficient Mobile Robot Navigation using 3D Surfel Grid Maps,  

[C258] J. Stueckler and S. Behnke,  
Robust Real-Time Registration of RGB-D Images using Multi-Resolution Surfel Representations,  

[C259] V. Usenko, F. Seidel, Z. Marton, D. Pangercic and M. Beetz,  
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[C260] F. R. Schmidt and Y. Boykov,  
Hausdorff Distance Constraint for Multi-Surface Segmentation,  

[C261] L. Gorelick, F. R. Schmidt, Y. Boykov, A. Delong and A. Ward,  
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[C262] A. Torsello, E. Rodola and A. Albarelli,  
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[C263] F. Bergamasco, A. Albarelli, E. Rodola and A. Torsello,  
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[C264] A. Albarelli, E. Rodola and A. Torsello,  
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**Sampling Relevant Points for Surface Registration,**

[C266] T. Windheuser, U. Schlickewei, F. R. Schmidt and D. Cremers,
**Geometrically Consistent Elastic Matching of 3D Shapes: A Linear Programming Solution,**
2011.

[C267] M. Aubry, U. Schlickewei and D. Cremers,
**Pose-Consistent 3D Shape Segmentation Based on a Quantum Mechanical Feature Descriptor,**
Frankfurt, Germany, Springer, 2011.

[C268] T. Schoenemann, S. Masnou and D. Cremers,
**On a linear programming approach to the discrete Willmore boundary value problem and generalizations,**

[C269] E. Strekalovskiy and D. Cremers,
**Total Variation for Cyclic Structures: Convex Relaxation and Efficient Minimization,**

[C270] B. Goldluecke and D. Cremers,
**Introducing Total Curvature for Image Processing,**
2011.

[C271] E. Strekalovskiy, B. Goldluecke and D. Cremers,
**Tight Convex Relaxations for Vector-Valued Labeling Problems,**
2011.

[C272] M. Aubry, K. Kolev, B. Goldluecke and D. Cremers,
**Decoupling Photometry and Geometry in Dense Variational Camera Calibration,**
2011.

[C273] E. Strekalovskiy and D. Cremers,
**Generalized Ordering Constraints for Multilabel Optimization,**
2011.

[C274] 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.

[C275] N. Engelhard, F. Endres, J. Hess, J. Sturm and W. Burgard,
**Real-time 3D visual SLAM with a hand-held camera,**
<table>
<thead>
<tr>
<th>Publication ID</th>
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M. Schikora, W. Koch and D. Cremers,
Multi-object tracking via high accuracy optical flow and finite set statistics,

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

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A Survey on Geometry Recovery from a Single Image with Focus on Curved Object Reconstruction,

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[C297] D. Droeschel, J. Stueckler and S. Behnke, 
Learning to Interpret Pointing Gestures with a Time-of-flight Camera, 

[C298] F. R. Schmidt, H. Ackermann and B. Rosenhahn, 
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[C299] A. Delong, L. Gorelick, F. R. Schmidt, O. Veksler and Y. Boykov, 
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[C300] A. Albarelli, E. Rodola and A. Torsello, 
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2010.

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A Game-Theoretic Approach to Robust Selection of Multi-View Point Correspondence, 
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[C302] A. Albarelli, E. Rodola, A. Cavallarin and A. Torsello, 
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[C303] E. Rodola, A. Albarelli and A. Torsello, 
A Game-Theoretic Approach to the Enforcement of Global Consistency in Multi-View Feature Matching, 

[C304] A. Albarelli, E. Rodola and A. Torsello, 
A Game-Theoretic Approach to Fine Surface Registration without Initial Motion Estimation, 

[C305] 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.

[C306] A. Albarelli, E. Rodola and A. Torsello, 
Loosely Distinctive Features for Robust Surface Alignment, 
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[C325] J. Shin, R. Triebel and R. Siegwart,
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[C326] J. Maye, L. Spinello, R. Triebel and R. Siegwart,

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[C330] D. Holz, R. Schnabel, D. Droeschel, J. Stueckler and S. Behnke,
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[C331] 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,

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[C334] M. Nieuwenhuisen, J. Stueckler and S. Behnke,
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