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[BC22] M. Bergtholdt, D. Cremers and C. Schnörr,
Variational segmentation with shape priors,
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Conference and Workshop Papers

[C1] M. Eisenberger, A. Toker, L. Leal-Taixe, F. Bernard and D. Cremers,
A Unified Framework for Implicit Sinkhorn Differentiation,
*IEEE International Conference on Computer Vision and Pattern Recognition (CVPR)*, 2022.

[C2] C Tomani, D Cremers and F Buettner,
Parameterized Temperature Scaling for Boosting the Expressive Power in Post-Hoc Uncertainty Calibration,
*European Conference on Computer Vision (ECCV)*, 2022.

[C3] J. Veraart and 100 coauthors,
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[C4] C Sommer, L Sang, D Schubert and D Cremers,
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[C5] Z Ye, T Yenamandra, F Bernard and D Cremers,
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[C6] D Muhle, L Koestler, N Demmel, F Bernard and D Cremers,
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[C7] F Wimbauer, S Wu and C Rupprecht,
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[C8] S Weber, N Demmel, T Chon Chan and D Cremers,
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[C9] F Müller, Q Khan and D Cremers,
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[C11] D Das, Q Khan and D Cremers,
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[C24] B. Haefner, S. Green, A. Oursland, D. Andersen, M. Goesele, D. Cremers, R. Newcombe and T. Whelan,
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[C25] T Frerix, D Kochkov, J Smith, D Cremers, M Brenner and S Hoyer,
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[C26] M. Eisenberger, D. Novotny, G. Kerchenbaum, P. Labatut, N. Neverova, D. Cremers and
A. Vedaldi,
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2021.

[C27] M. C. Mukkamala, F. Westerkamp, E. Laude, D. Cremers and P. Ochs,
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[C28] Z. Ye, B. Haefner, Y. Queau, T. Möllenhoff and D. Cremers,
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[C29] F. Wimbauer, N. Yang, L. von Stumberg, N. Zeller and D Cremers,
MonoRec: Semi-Supervised Dense Reconstruction in Dynamic Environments
from a Single Moving Camera,

[C30] T Yenamandra, A Tewari, F Bernard, HP Seidel, M Elgharib, D Cremers and C Theobalt,
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[C32] M Naeyaert, V Golkov, D Cremers, J Sijbers and M Verhoye,
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[C33] P. Müller, V. Golkov, V. Tomassini and D. Cremers,
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[C34] Q. Khan, P. Wenzel and D. Cremers,
Self-Supervised Steering Angle Prediction for Vehicle Control Using Visual Odometry,
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[C35] M. Gladkova, R. Wang, N. Zeller and D. Cremers,
Tight Integration of Feature-based Relocalization in Monocular Direct Visual Odometry,

[C36] Y. Xia, Y. Xu, S. Li, R. Wang, J. Du, D. Cremers and U. Stilla,
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[C37] P. Wenzel, T. Schön, L. Leal-Taixe and D. Cremers,
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[C38] M. Sewtz, X. Luo, J. Landgraf, T. Bodenmüller and R. Triebel,
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[C39] D. Winkelbauer, M. Denninger and R. Triebel,
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[C40] H. Lehner, M.J. Schuster, T. Bodenmüller and R. Triebel,
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[C41] W. Boerdijk, M. Sundermeyer, M. Durner and R. Triebel,
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[C43] I. Ballester, A. Fontan, J. Civera, K.H. Strobl and R. Triebel,
DOT: Dynamic Object Tracking for Visual SLAM,
[C44] N Demmel, C Sommer, D Cremers and V Usenko, 
Square Root Bundle Adjustment for Large-Scale Reconstruction, 

[C45] C Tomani and F Buettner, 
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[C46] C Tomani, S Gruber, ME Erdem, D Cremers and F Buettner, 
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[C47] M Lyssenko, C Gladisch, C Heinzemmann, M Woehrle and R Triebel, 
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Square Root Marginalization for Sliding-Window Bundle Adjustment, 
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[C49] MW Wudenka, MG Müller, N Demmel, A Wedler, R Triebel, D Cremers and W Stuerzl, 
Towards Robust Monocular Visual Odometry for Flying Robots on Planetary Missions, 

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TUM-VIE: The TUM Stereo Visual-Inertial Event Dataset, 

[C51] L Koestler, N Yang, N Zeller and D Cremers, 
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[C54] D Schnaus, J Lee and R Triebel, 
Kronecker-Factored Optimal Curvature, 

[C55] HC Liao, R Giubilato, W Stürzl and R Triebel, 
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[C56] R Giubilato, M Vayugundla, W Stürzl, M Schuster, A Wedler and R Triebel, 
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ally Enriched Submaps, 

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[C58] M Lyssenko, C Gladisch, C Heinzemann, M Woehrle and R Triebel, 
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oriented Synthetic Data Generation in Crowded Scenes, 
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[C61] L. Sang, B. Haefner and D. Cremers, 
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[C62] T Frerix, M Niesner and D Cremers, 
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[C63] R. Wang, N. Yang, J. Stueckler and D. Cremers, 
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and Shape Estimation, 

[C64] M. Eisenberger, Z. Lähner and D. Cremers, 
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[C66] M. Eisenberger, A. Toker, L. Leal-Taixe and D. Cremers, 
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[C67] S. Weiss, R. Maier, D. Cremers, R. Westermann and N. Thuerey,
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[C79] M Sewtz, T Bodenmüller and R Triebel, 
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[C80] CL Gentil, M Vayugundla, R Giubilato, W Stürzl, TA. Vidal-Calleja and R Triebel, 
**Gaussian Process Gradient Maps for Loop-Closure Detection in Unstructured Planetary Environments**, 

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**PrimiTect: Fast Continuous Hough Voting for Primitive Detection**, 

[C82] L. Koestler, N. Yang, R. Wang and D. Cremers, 
**Learning Monocular 3D Vehicle Detection without 3D Bounding Box Labels**, 

[C83] P. Wenzel, R. Wang, N. Yang, Q. Cheng, Q. Khan, L. von Stumberg, N. Zeller and D. Cremers, 
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[C87] F Schiel, A Hagengruber, J Vogel and R Triebel, 
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[C90] N Demmel, M Gao, E Laude, T Wu and D Cremers,
Distributed Photometric Bundle Adjustment,
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[C91] L. von Stumberg, P. Wenzel, N. Yang and D. Cremers,
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[C94] B. Haefner, Z. Ye, M. Gao, T. Wu, Y. Queau and D. Cremers,
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[C100] E. Bylow, R. Maier, F. Kahl and C. Olsson,
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[C103] T. Möllenhoff and D. Cremers,  
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[C118] C Domokos, FR. Schmidt and D Cremers, 
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[C119] E. Laude, T. Wu and D. Cremers, 
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[C186] 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, 
Annual Conference on Neural Information Processing Systems (NIPS), Barcelona, Spain, dec 2016, Oral Presentation (acceptance rate: under 2%).

[C187] Z. Lähner, E. Rodola, F. R. Schmidt, M. M. Bronstein and D. Cremers, 
Efficient Globally Optimal 2D-to-3D Deformable Shape Matching, 
IEEE Conference on Computer Vision and Pattern Recognition (CVPR), May 2016.
[C188] V. Usenko, J. Engel, J. Stueckler and D. Cremers,
Direct Visual-Inertial Odometry with Stereo Cameras,

[C189] A. Narr, R. Triebel and D. Cremers,
Stream-based Active Learning for Efficient and Adaptive Classification of 3D Objects,

SHREC’16: Matching of Deformable Shapes with Topological Noise,
Proc. of Eurographics Workshop on 3D Object Retrieval (3DOR), May 2016.

[C191] L. Cosmo, E. Rodola, M. M. Bronstein, A. Torsello, D. Cremers and Y. Sahillioglu,
SHREC’16: Partial Matching of Deformable Shapes,
Proc. of Eurographics Workshop on 3D Object Retrieval (3DOR), May 2016.

[C192] T. Möllenhoff, E. Laude, M. Moeller, J. Lellmann and D. Cremers,
Sublabel-Accurate Relaxation of Nonconvex Energies,
*IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2016, Oral Presentation, Received the Best Paper Honorable Mention Award at CVPR 2016.

[C193] L. Ma, C. Kerl, J. Stueckler and D. Cremers,
CPA-SLAM: Consistent Plane-Model Alignment for Direct RGB-D SLAM,

[C194] J. Engel, V. Usenko and D. Cremers,
A Photometrically Calibrated Benchmark For Monocular Visual Odometry,

[C195] J. Engel, V. Koltun and D. Cremers,
Direct Sparse Odometry,

[C196] E. Laude, T. Möllenhoff, M. Moeller, J. Lellmann and D. Cremers,
Sublabel-Accurate Convex Relaxation of Vectorial Multilabel Energies,
*European Conference on Computer Vision (ECCV)*, October 2016.

[C197] D. Bender, D. Cremers and W. Koch,
A position free boresight calibration for INS-camera systems,

[C198] I. Chiotellis, R. Triebel, T. Windheuser and D. Cremers,
Non-Rigid 3D Shape Retrieval via Large Margin Nearest Neighbor Embedding,
*European Conference on Computer Vision (ECCV)*, October 2016.

[C199] T. Windheuser and D. Cremers,
A Convex Solution to Spatially-Regularized Correspondence Problems,
*European Conference on Computer Vision (ECCV)*, October 2016.
[C200] S. Sharifzadeh, I. Chiotellis, R. Triebel and D. Cremers,
Learning to Drive using Inverse Reinforcement Learning and Deep Q-Networks,
NIPS Workshops, December 2016.

[C201] D. Bender, F. Rouatbi, M. Schikora, D. Cremers and W. Koch,
Scaling the world of monocular SLAM with INS-measurements for UAS navigation,

[C202] 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.

[C203] D. Kochanov, A. Osep, J. Stueckler and B. Leibe,
Scene Flow Propagation for Semantic Mapping and Object Discovery in Dynamic Street Scenes,

[C204] 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.

[C205] M. Moeller, J. Diebold, G. Gilboa and D. Cremers,
Learning Nonlinear Spectral Filters for Color Image Reconstruction,
IEEE International Conference on Computer Vision (ICCV), 2015.

[C206] J. Diebold, N. Demmel, C. Hazirbas, M. Möller and D. Cremers,
Interactive Multi-label Segmentation of RGB-D Images,
Scale Space and Variational Methods in Computer Vision (SSVM), June 2015.

[C207] C. Hazirbas, J. Diebold and D. Cremers,
Optimizing the Relevance-Redundancy Tradeoff for Efficient Semantic Segmentation,
Scale Space and Variational Methods in Computer Vision (SSVM), June 2015, Oral Presentation.

[C208] A. Kanezaki, E. Rodola and T. Harada,
RGB-D [Graph matching gakushuu wo mochiita RGB-D gazou kara no butttai kenshutsu] - Learning graph matching for object detection from RGB-D images,
20 - Robotics Symposia (RS), Karuizawa, Japan, Mar 2015.

[C209] T. Möllenhoff, E. Strekalovskiy, M. Möller and D. Cremers,
Low Rank Priors for Color Image Regularization,

[C210] 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.
[C211] J. Stühmer and D. Cremers,
A Fast Projection Method for Connectivity Constraints in Image Segmenta-
tion,
X.-C. Tai, E. Bae, T. F. Chan and M. Lysaker(Eds.), Energy Minimization Methods in
Computer Vision and Pattern Recognition (EMMCVPR), LNCS, 2015.

[C212] R. Mecca, E. Rodola and D. Cremers,
Analysis of Surface Parametrizations for Modern Photometric Stereo Mode-
dling,
International Conference on Quality Control by Artificial Vision (QCAV), 2015.

[C213] 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,
IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2015.

[C214] 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 Multi-
ple Sclerosis Lesions,
International Society for Magnetic Resonance in Medicine (ISMRM) Annual Meeting,
2015.

[C216] 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,
International Society for Magnetic Resonance in Medicine (ISMRM) Annual Meeting,
2015.

[C217] A. Menini, V. Golkov and F. Wiesinger,
Free-Breathing, Self-Navigated RUFIS Lung Imaging with Motion Compen-
sated Image Reconstruction,
International Society for Magnetic Resonance in Medicine (ISMRM) Annual Meeting,
2015.

P. A. Gomez, A. Haase, T. Brox and D. Cremers,
q-Space Deep Learning for Twelve-Fold Shorter and Model-Free Diffusion MRI
Scans,
Medical Image Computing and Computer Assisted Intervention (MICCAI), Munich, Ger-
many, oct 2015.

[C219] 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,
IEEE International Conference on Computer Vision (ICCV), dec 2015.
SPENCER: A Socially Aware Service Robot for Passenger Guidance and Help in Busy Airports,

[C221] D. Holz, A. Topalidou-Kyniazopoulou, J. Stueckler and S. Behnke,
Real-Time Object Detection, Localization and Verification for Fast Robotic Depalletizing,

[C222] J. Engel, J. Stueckler and D. Cremers,
Large-Scale Direct SLAM with Stereo Cameras,

[C223] D. Caruso, J. Engel and D. Cremers,
Large-Scale Direct SLAM for Omnidirectional Cameras,

[C224] Y. Tao, R. Triebel and D. Cremers,
Semi-supervised Online Learning for Efficient Classification of Objects in 3D Data Streams,

[C225] R. Maier, J. Stueckler and D. Cremers,
Super-Resolution Keyframe Fusion for 3D Modeling with High-Quality Textures,
International Conference on 3D Vision (3DV), October 2015.

[C226] V. Usenko, J. Engel, J. Stueckler and D. Cremers,
Reconstructing Street-Scenes in Real-Time From a Driving Car,

[C227] M. Jaimez, M. Souiai, J. Stueckler, J. Gonzalez-Jimenez and D. Cremers,
Motion Cooperation: Smooth Piece-Wise Rigid Scene Flow from RGB-D Images,

[C228] E. Rodola, M. Moeller and D. Cremers,
Point-wise Map Recovery and Refinement from Functional Correspondence,
Proceedings Vision, Modeling and Visualization (VMV), Aachen, Germany, 2015, Received the Best Paper Award.

[C229] 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.

[C230] M. Souiai, M. R. Oswald, Y. Kee, J. Kim, M. Pollefeys and D. Cremers,
Entropy Minimization for Convex Relaxation Approaches,
IEEE International Conference on Computer Vision (ICCV), Santiago, Chile, 2015.
[C231] 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.

[C232] N. Nagaraja, F. R. Schmidt and T. Brox, 
**Video Segmentation with Just a Few Strokes**, 
*IEEE International Conference on Computer Vision (ICCV)*, Santiago, Chile, Dec 2015.

**Model-Based Tracking at 300Hz using Raw Time-of-Flight Observations**, 
*IEEE International Conference on Computer Vision (ICCV)*, Santiago, Chile, 2015.

[C234] J. Duran, M. Moeller, C. Sbert and D. Cremers, 
**A Novel Framework for Nonlocal Vectorial Total Variation Based on \(l^{p,q,r} \) \(^{\sim} \)norms**, 

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

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

**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**, 

[C238] 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**, 

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

[C240] D. B. AD. CJ. C D. Weikersdorfer, 
**Event-based 3D SLAM with a depth-augmented dynamic vision sensor**, 
[C241] F. Steinbruecker, J. Sturm and D. Cremers,
Volumetric 3D Mapping in Real-Time on a CPU,

[C242] E. Rodola, S. R Bulo, T. Windheuser, M. Vestner and D. Cremers,
Dense Non-Rigid Shape Correspondence Using Random Forests,
*IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2014.

[C243] Y. Kee, M. Souiai, D. Cremers and J. Kim,
Sequential Convex Relaxation for Mutual-Information-Based Unsupervised
Figure-Ground Segmentation,
*IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2014.

[C244] H. Alvarez, L.M. Paz, J. Sturm and D. Cremers,
Collision Avoidance for Quadrotors with a Monocular Camera,

[C245] J. Engel, T. Schöps and D. Cremers,
LSD-SLAM: Large-Scale Direct Monocular SLAM,
*European Conference on Computer Vision (ECCV)*, September 2014, Oral Presentation.

[C246] T. Schöps, J. Engel and D. Cremers,
Semi-Dense Visual Odometry for AR on a Smartphone,

[C247] T. Windheuser, M. Vestner, E. Rodola, R. Triebel and D. Cremers,
Optimal Intrinsic Descriptors for Non-Rigid Shape Analysis,

[C248] 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.

[C249] 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, Oral Presentation.

[C250] T. Gurdan, M. R. Oswald, D. Gurdan and D. Cremers,
Spatial and Temporal Interpolation of Multi-View Image Sequences,
*German Conference on Pattern Recognition (GCPR)*, Münster, Germany, Vol. 36, sep 2014.

[C251] M. R. Oswald and D. Cremers,
Surface Normal Integration for Convex Space-time Multi-view Reconstruction,

[C252] C. Nieuwenhuis, S. Hawe, M. Kleinsteuber and D. Cremers,
Co-Sparse Textural Similarity for Interactive Segmentation,

[C253] M. R. Oswald, J. Stühmer and D. Cremers,
Generalized Connectivity Constraints for Spatio-temporal 3D Reconstruction,
[C254] E. Strekalovskiy and D. Cremers, 
Real-Time Minimization of the Piecewise Smooth Mumford-Shah Functional, 

[C255] A. Kanezaki, E. Rodola and T. Harada, 
RGB-D [RGB-D gazou kara no buttai kenshutsu ni okeru taiou tenshuugou ruijido no gakushuu], 

[C256] A. Kanezaki, E. Rodola, D. Cremers and T. Harada, 
[Taiou tenshuugou ruijido gakushuu wo mochiita goutai-higoutai buttai kenshutsu], 

[C257] 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.

[C258] O. Dunkley, J. Engel, J. Sturm and D. Cremers, 
Visual-Inertial Navigation for a Camera-Equipped 25g Nano-Quadrotor, 

[C259] 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.

[C260] S. Debnath, S. S. Baishya, R. Triebel, V. Dutt and D. Cremers, 
Environment-adaptive Learning: How Clustering Helps to Obtain Good Training Data, 

[C261] 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.

[C262] 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.

[C263] 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.

[C264] J. Stueckler and S. Behnke, 
Adaptive Tool-Use Strategies for Anthropomorphic Service Robots, 
[C265] D. Droeschel, J. Stueckler and S. Behnke,
Local Multi-Resolution Surfel Grids for MAV Motion Estimation and 3D Mapping,

[C266] 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, jun 2014.

[C267] J. Stueckler and S. Behnke,
Efficient deformable registration of multi-resolution surfel maps for object manipulation skill transfer,

[C268] 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.

[C269] M. Schwarz, J. Stueckler and S. Behnke,
Mobile Teleoperation Interfaces with Adjustable Autonomy for Personal Service Robots,

[C270] F. R. Schmidt, T. Windheuser, U. Schlickewei and D. Cremers,
Dense Elastic 3D Shape Matching,

[C271] J Bergbauer and S Tari,
Wimmelbild Analysis with Approximate Curvature Coding Distance Images,

[C272] J Bergbauer and S Tari,
Top-down visual search in Wimmelbild,

[C273] F. Bergamasco, A. Albarelli, E. Rodola and A. Torsello,
Can a fully unconstrained imaging model be applied effectively to central cameras?,

[C274] M. Souiai, C. Niuewenhuis, E. Strekalovskiy and D. Cremers,
Convex Optimization for Scene Understanding,
ICCV Workshop on Graphical Models for Scene Understanding, 2013.
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[C275] 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.

[C276] 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,
*European Society for Magnetic Resonance in Medicine and Biology (ESMRMB) Annual Meeting*, 2013, **Oral Presentation**.

[C277] 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,
*European Society for Magnetic Resonance in Medicine and Biology (ESMRMB) Annual Meeting*, 2013, **Certificate of Merit Award**.

[C278] 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**.

[C279] 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,

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

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

[C283] C. Kerl, J. Sturm and D. Cremers,
Robust Odometry Estimation for RGB-D Cameras,
*International Conference on Robotics and Automation (ICRA)*, May 2013, **Best Vision Paper Award - Finalist**.
All: 1

List of Publications

[C284] E. Toeppe, C. Nieuwenhuis and D. Cremers,
Volume Constraints for Single View Reconstruction,
IEEE Conference on Computer Vision and Pattern Recognition (CVPR), Portland, USA, 2013.

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

[C286] H. Grimmett, R. Paul, R. Triebel and I. Posner,
Knowing When We Don’t Know: Introspective Classification for Mission-Critical Decision Making,

[C287] A. SD. C D. Weikersdorfer,
Depth-adative Supervoxels for RGB-D Video Segmentation,

[C288] 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,

[C290] E. Bylow, J. Sturm, C. Kerl, F. Kahl and D. Cremers,
Real-Time Camera Tracking and 3D Reconstruction Using Signed Distance Functions,

[C291] 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.

[C292] 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.

[C293] M. Souiai, E. Strekalovskiy, C. Nieuwenhuis and D. Cremers,
A Co-occurrence Prior for Continuous Multi-Label Optimization,

[C294] F. Stangl, M. Souiai and D. Cremers,
Performance Evaluation of Narrow Band Methods for Variational Stereo,
35th German Conference on Pattern Recognition (GCPR), 2013.
[C295] T. Möllenhoff, C. Nieuwenhuis, E. Toeppe and D. Cremers,
Efficient Convex Optimization for Minimal Partition Problems with Volume Constraints,

[C296] C. Kerl, J. Sturm and D. Cremers,
Dense Visual SLAM for RGB-D Cameras,

[C297] T. Naseer, J. Sturm and D. Cremers,
FollowMe: Person Following and Gesture Recognition with a Quadrocopter,

[C298] 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.

[C299] 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.

[C300] 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.

[C301] 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.

[C302] E. Rodola, T. Harada, Y. Kuniyoshi and D. Cremers,
Efficient Shape Matching using Vector Extrapolation,

[C303] J. Engel, J. Sturm and D. Cremers,
Semi-Dense Visual Odometry for a Monocular Camera,
IEEE International Conference on Computer Vision (ICCV), Sydney, Australia, December 2013.

[C304] E. Rodola, A. Torsello, T. Harada, Y. Kuniyoshi and D. Cremers,
Elastic Net Constraints for Shape Matching,
IEEE International Conference on Computer Vision (ICCV), Sydney, Australia, December 2013.

[C305] J. Lellmann, E. Strekalovskiy, S. Koetter and D. Cremers,
Total Variation Regularization for Functions with Values in a Manifold,
IEEE International Conference on Computer Vision (ICCV), Sydney, Australia, December 2013.
[C306] C. Nieuwenhuis, E. Strekalovskiy and D. Cremers,
Proportion Priors for Image Sequence Segmentation,
IEEE International Conference on Computer Vision (ICCV), Sydney, Australia, December 2013.

[C307] J. Stühmer, P. Schröder and D. Cremers,
Tree Shape Priors with Connectivity Constraints using Convex Relaxation on General Graphs,
IEEE International Conference on Computer Vision (ICCV), Sydney, Australia, December 2013, Oral Presentation.

[C308] G. Kuschik 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.

[C309] 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.

[C310] F. Steinbruecker, C. Kerl, J. Sturm and D. Cremers,
Large-Scale Multi-Resolution Surface Reconstruction from RGB-D Sequences,
IEEE International Conference on Computer Vision (ICCV), Sydney, Australia, 2013.

[C311] 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.

[C312] R. Triebel, H. Grimmett, R. Paul and I. Posner,
Driven Learning for Driving: How Introspection Improves Semantic Mapping,
The International Symposium on Robotics Research (ISRR), 2013.

[C313] D. Cremers, E. Rodola and T. Windheuser,
Relaxations for Minimizing Metric Distortion and Elastic Energies for 3D Shape Matching,

[C314] M. Schadler, J. Stueckler and S. Behnke,
Multi-resolution surfel mapping and real-time pose tracking using a continuously rotating 2D laser scanner,

[C315] J. Stueckler and S. Behnke,
Efficient Dense 3D Rigid-Body Motion Segmentation in RGB-D Video,

[C316] M. McEllhine, J. Stueckler and S. Behnke,
Joint detection and pose tracking of multi-resolution surfel models in RGB-D,
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[C317] T. Fiolka, J. Stueckler, D. A. Klein, D. Schulz and S. Behnke,
Distinctive 3D surface entropy features for place recognition,

[C318] A. Berner, J Li, D. Holz, J. Stueckler, S. Behnke and R. Klein,
Combining contour and shape primitives for object detection and pose estimation of prefabricated parts,

[C319] J. Stueckler and S. Behnke,
Hierarchical Object Discovery and Dense Modelling From Motion Cues in
RGB-D Video,

[C320] M. Nieuwenhuisen, D. Droeschel, D. Holz, J. Stueckler, A. Berner, J Li, R. Klein and S. Behnke,
Mobile bin picking with an anthropomorphic service robot,

[C321] L. Gorelick, F. R. Schmidt and Y. Boykov,
Fast Trust Region for Segmentation,

[C322] L. Ma, T. Whelan, E. Bondarev, P. H. N. de With and J. McDonald,
Planar simplification and texturing of dense point cloud maps,

[C323] E. Rodola, A.M. Bronstein, A. Albarelli, F. Bergamasco and A. Torsello,
A game-theoretic approach to deformable shape matching,

[C324] F. Endres, J. Hess, N. Engelhard, J. Sturm, D. Cremers and W. Burgard,
An Evaluation of the RGB-D SLAM System,

[C325] T. Ruehr, J. Sturm, D. Pangercic, M. Beetz and D. Cremers,
A Generalized Framework for Opening Doors and Drawers in Kitchen Environments,

[C326] D Joho, GD Tipaldi, N Engelhard, C Stachniss and W Burgard,
Nonparametric Bayesian Models for Unsupervised Scene Analysis and Reconstruction,

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