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[J29] J. Engel, V. Koltun and D. Cremers,
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[J30] N. Yang, R. Wang, X. Gao and D. Cremers,
Challenges in Monocular Visual Odometry: Photometric Calibration, Motion Bias and Rolling Shutter Effect,

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LED-based Photometric Stereo: Modeling, Calibration and Numerical Solution,

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[J141] B. Rosenhahn, T. Brox and J. Weickert,
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Conference and Workshop Papers


[C6] C Sommer, L Sang, D Schubert and D Cremers,
Gradient-SDF: A Semi-Implicit Surface Representation for 3D Reconstruction,
*IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2022.

[C7] Z Ye, T Yenamandra, F Bernard and D Cremers,
Joint Deep Multi-Graph Matching and 3D Geometry Learning from Inhomogeneous 2D Image Collections,
*AAAI*, 2022.

[C8] D Muhle, L Koestler, N Demmel, F Bernard and D Cremers,
The Probabilistic Normal Epipolar Constraint for Frame-To-Frame Rotation Optimization under Uncertain Feature Positions,
*IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2022.

[C9] F Wim Bauer, S Wu and C Rupprecht,
De-rendering 3D Objects in the Wild,
*IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2022.

[C10] S Weber, N Demmel, T Chon Chan and D Cremers,
Power Bundle Adjustment for Large-Scale 3D Reconstruction,
*submission*, 2022.

[C11] F Müller, Q Khan and D Cremers,
Lateral Ego-Vehicle Control Without Supervision Using Point Clouds,

[C12] L Hang, Q Khan, V Tresp and D Cremers,
Biologically Inspired Neural Path Finding,
*Brain Informatics (Accepted)*, Springer, 2022.

[C13] D Das, Q Khan and D Cremers,
Ventriloquist-Net: Leveraging Speech Cues for Emotive Talking Head Generation,
*IEEE International Conference on Image Processing (Accepted)*, 2022.

[C14] L Koestler, D Grittner, M Moeller, D Cremers and Z Lähner,
Intrinsic Neural Fields: Learning Functions on Manifolds,
*European Conference on Computer Vision (ECCV)*, 2022.

[C15] AF Villacampa, LO Maza, J Civera and R Triebel,
A Model for Multi-View Residual Covariances Based on Perspective Deformation,

[C16] E Aljalbout, M Ulmer and R Triebel,
Seeking Visual Discomfort: Curiosity-Driven Representations for Reinforcement Learning,

[C17] M Stoiber, M Sundermeyer and R Triebel,
Iterative Corresponding Geometry: Fusing Region and Depth for Highly Efficient 3D Tracking of Textureless Objects,
*IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2022.
[C18] W Boerdijk, M Durner, M Sundermeyer and R Triebel,
Towards Robust Perception of Unknown Objects in the Wild,

[C19] M Lyssenko, CD Gladisch, C Heinzemann, M Woehrle and R Triebel,
Towards Safety-Aware Pedestrian Detection in Autonomous Systems,

[C20] M Knauer, M Denninger and R Triebel,
RECALL: Rehearsal-free Continual Learning for Object Classification,

[C21] D Winkelbauer, B Bäuml, N Thuerey and R Triebel,
A Two-stage Learning Architecture that Generates High-Quality Grasps for a Multi-Fingered Hand,

[C22] J Feng, J Lee, M Durner and R Triebel,
Bayesian Active Learning for Sim-to-Real Robotic Perception,

[C23] L Meyer, KH. Strobl and R Triebel,
The Probabilistic Robot Kinematics Model and its Application to Sensor Fusion,

[C24] R Giubilato, W Stürzl, A Wedler and R Triebel,
Challenges of SLAM in extremely unstructured environments: the DLR Planetary Stereo, Solid-State LiDAR, Inertial Dataset,

[C25] M Gladkova, N Korobov, N Demmel, A Osep, L Leal-Taixe and D Cremers,
DirectTracker: 3D Multi-Object Tracking Using Direct Image Alignment and Photometric Bundle Adjustment,

[C26] HHH Hsu, Y Shen, C Tomani and D Cremers,
What Makes Graph Neural Networks Miscalibrated?,

[C27] Y Shen and D Cremers,
Deep Combinatorial Aggregation,

[C28] HHH Hsu, Y Shen and D Cremers,
A Graph Is More Than Its Nodes: Towards Structured Uncertainty-Aware Learning on Graphs,

[C29] B. Haefner, S. Green, A. Oursland, D. Andersen, M. Goesele, D. Cremers, R. Newcombe and T. Whelan,
Recovering Real-world Reflectance Properties and Shading from HDR Imagery,
[C30] T Frerix, D Kochkov, J Smith, D Cremers, M Brenner and S Hoyer,
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[C31] M. Eisenberger, D. Novotny, G. Kerchenbaum, P. Labatut, N. Neverova, D. Cremers and
A. Vedaldi,
NeuroMorph: Unsupervised Shape Interpolation and Correspondence in One
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IEEE International Conference on Computer Vision and Pattern Recognition (CVPR),
2021.

[C32] M. C. Mukkamala, F. Westerkamp, E. Laude, D. Cremers and P. Ochs,
Bregman Proximal Gradient Algorithms for Deep Matrix Factorization,
Elmoataz, Abderrahim, Fadili, Jalal, Quéau, Yvain, Rabin, Julien, Simon and Loïc(Eds.),
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[C33] Z. Ye, B. Haefner, Y. Queau, T. Mölenhoff and D. Cremers,
Sublabel-Accurate Multilabeling Meets Product Label Spaces,
DAGM German Conference on Pattern Recognition (GCPR), 2021.

[C34] 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,

[C35] T Yenamandra, A Tewari, F Bernard, HP Seidel, M Elgharib, D Cremers and C Theobalt,
i3DMM: Deep Implicit 3D Morphable Model of Human Heads,
Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition
(CVPR), June 2021, Oral Presentation.

[C36] M Gao, Z Lähner, J Thunberg, D Cremers and F Bernard,
Isometric Multi-Shape Matching,
IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2021, Oral Pre-
sentation.

[C37] M Naeyaert, V Golkov, D Cremers, J Sijbers and M Verhoeye,
Faster and better HARDI using FSE and holistic reconstruction,
International Society for Magnetic Resonance in Medicine (ISMRM) Annual Meeting,
2021.

[C38] P. Müller, V. Golkov, V. Tommassini and D. Cremers,
Rotation-Equivariant Deep Learning for Diffusion MRI (short version),
International Society for Magnetic Resonance in Medicine (ISMRM) Annual Meeting,
2021.

[C39] Q. Khan, P. Wenzel and D. Cremers,
Self-Supervised Steering Angle Prediction for Vehicle Control Using Visual
Odometry,
International Conference on Artificial Intelligence and Statistics (AISTATS), 2021.

[C40] M Gladkova, R Wang, N Zeller and D Cremers,
Tight Integration of Feature-based Relocalization in Monocular Direct Visual
Odometry,
[C41] Y. Xia, Y. Xu, S. Li, R. Wang, J. Du, D. Cremers and U. Stilla,
SOE-Net: A Self-Attention and Orientation Encoding Network for Point Cloud
based Place Recognition,
*IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2021, Oral Pre-
sentation.

[C42] P. Wenzel, T. Schön, L. Leal-Taixe and D. Cremers,
Vision-Based Mobile Robotics Obstacle Avoidance With Deep Reinforcement
Learning,
*Proceedings of the IEEE International Conference on Robotics and Automation (ICRA)*,
2021.

[C43] M Sewtz, X Luo, J Landgraf, T Bodenmüller and R Triebel,
Robust Approaches for Localization on Multi-camera Systems in Dynamic En-
virenments,
*Proceedings of the IEEE International Conference on Automation, Robotics and Applica-
tions (ICARA)*, 2021.

[C44] D Winkelbauer, M Denninger and R Triebel,
Learning to Localize in New Environments from Synthetic Training Data,
*Proceedings of the IEEE International Conference on Robotics and Automation (ICRA)*,
2021.

[C45] H Lehner, MJ. Schuster, T Bodenmüller and R Triebel,
Exploration of Large Outdoor Environments Using Multi-Criteria Decision
Making,
*Proceedings of the IEEE International Conference on Robotics and Automation (ICRA)*,
2021.

[C46] W Boerdijk, M Sundermeyer, M Durner and R Triebel,
“What’s This? Learning to Segment Unknown Objects from Manipulation
Sequences,
*Proceedings of the IEEE International Conference on Robotics and Automation (ICRA)*,
2021.

[C47] M Sundermeyer, A Mousavian, R Triebel and D Fox,
Contact-GraspNet: Efficient 6-DoF Grasp Generation in Cluttered Scenes,
*Proceedings of the IEEE International Conference on Robotics and Automation (ICRA)*,
2021.

[C48] I Ballester, A Fontan, J Civera, KH. Strobl and R Triebel,
DOT: Dynamic Object Tracking for Visual SLAM,
*Proceedings of the IEEE International Conference on Robotics and Automation (ICRA)*,
2021.

[C49] N Demmel, C Sommer, D Cremers and V Usenko,
Square Root Bundle Adjustment for Large-Scale Reconstruction,
*IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2021.

[C50] C Tomani and F Buettner,
Towards Trustworthy Predictions from Deep Neural Networks with Fast Ad-
versarial Calibration,
*InThirty-FifthAAAIConferenceonArtificialIntelligence(AAAI-2021)*, 2021.
[C51] C Tomani, S Gruber, ME Erdem, D Cremers and F Buettner,
Post-hoc Uncertainty Calibration for Domain Drift Scenarios,

[C52] M Lyssenko, C Gladisch, C Heinzemmann, M Woehrle and R Triebel,
From Evaluation to Verification: Towards Task-Oriented Relevance Metrics for Pedestrian Detection in Safety-Critical Domains,

[C53] N Demmel, D Schubert, C Sommer, D Cremers and V Usenko,
Square Root Marginalization for Sliding-Window Bundle Adjustment,
IEEE International Conference on Computer Vision (ICCV), 2021.

[C54] 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,

[C55] S Klenk, J Chui, N Demmel and D Cremers,
TUM-VIE: The TUM Stereo Visual-Inertial Event Dataset,

[C56] L Koestler, N Yang, N Zeller and D Cremers,
TANDEM: Tracking and Dense Mapping in Real-time using Deep Multi-view Stereo,
Conference on Robot Learning (CoRL), 2021, 3DV’21 Best Demo Award.

[C57] S Weber, N Demmel and D Cremers,
Multidirectional Conjugate Gradients for Scalable Bundle Adjustment,
German Conference on Pattern Recognition (GCPR), 2021, Oral Presentation.

[C58] J Lee, J Feng, M Humt, MG Müller and R Triebel,
Trust Your Robots! Predictive Uncertainty Estimation of Neural Networks with Sparse Gaussian Processes,
5th Conference on Robot Learning (CoRL), November 2021.

[C59] D Schnaus, J Lee and R Triebel,
Kronecker-Factored Optimal Curvature,

[C60] HC Liao, R Giubilato, W Stürzl and R Triebel,
Learning-Based Matching of 3D Submaps from Dense Stereo for Planetary-Like Environments,
International Conference on Advanced Robotics (ICAR), 2021.

[C61] R Giubilato, M Vayugundla, W Stürzl, M Schuster, A Wedler and R Triebel,
Multi-Modal Loop Closing in Unstructured Planetary Environments with Visually Enriched Submaps,
[C62] M Durner, W Boerdijk, M Sundermeyer, W Friedl, ZC Marton and R Triebel, 
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[C63] M Lyssenko, C Gladisch, C Heinzemann, M Woehrle and R Triebel, 
Instance Segmentation in CARLA: Methodology and Analysis for Pedestrian- 
oriented Synthetic Data Generation in Crowded Scenes, 
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IEEE, 988-996, 2021.

[C64] MG Müller, M Durner, A Gawel, W Stürzl, R Triebel and R Siegwart, 
A Photorealistic Terrain Simulation Pipeline for Unstructured Outdoor Environments, 

[C65] Y Wang, Y Shen and D Cremers, 
Explicit pairwise factorized graph neural network for semi-supervised node classification, 
*UAI*, 2021.

[C66] V. Golkov, M. J. Skwark, A. Mirchev, G. Dikov, A. R. Geanes, J. Mendenhall, J. Meiler and D. Cremers, 
3D Deep Learning for Biological Function Prediction from Physical Fields, 

[C67] L. Sang, B. Haefner and D. Cremers, 
Inferring Super-Resolution Depth from a Moving Light-Source Enhanced RGB-D Sensor: A Variational Approach, 
*IEEE Winter Conference on Applications of Computer Vision (WACV)*, Colorado, USA, 
March 2020, Spotlight Presentation.

[C68] T Frerix, M Niesner and D Cremers, 
Homogeneous Linear Inequality Constraints for Neural Network Activations, 

[C69] R. Wang, N. Yang, J. Stueckler and D. Cremers, 
DirectShape: Photometric Alignment of Shape Priors for Visual Vehicle Pose and Shape Estimation, 

[C70] M. Eisenberger, Z. Lähner and D. Cremers, 
Smooth Shells: Multi-Scale Shape Registration with Functional Maps, 
*IEEE International Conference on Computer Vision and Pattern Recognition (CVPR)*, 
2020, Oral Presentation.

[C71] M. Eisenberger and D. Cremers, 
Hamiltonian Dynamics for Real-World Shape Interpolation, 
*European Conference on Computer Vision (ECCV)*, 2020, Spotlight Presentation.

[C72] M. Eisenberger, A. Toker, L. Leal-Taixe and D. Cremers, 
Deep Shells: Unsupervised Shape Correspondence with Optimal Transport, 
[C73] S. Weiss, R. Maier, D. Cremers, R. Westermann and N. Thuerey,
Correspondence-Free Material Reconstruction using Sparse Surface Constraints,
*IEEE International Conference on Computer Vision and Pattern Recognition (CVPR)*, 2020.

[C74] C. Sommer, V. Usenko, D. Schubert, N. Demmel and D. Cremers,
Efficient Derivative Computation for Cumulative B-Splines on Lie Groups,
*IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2020, Oral Presentation.

[C75] N. Yang, L. von Stumberg, R. Wang and D. Cremers,
D3VO: Deep Depth, Deep Pose and Deep Uncertainty for Monocular Visual Odometry,
*IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2020, Oral Presentation.

[C76] A. Fontan-Villacampa, J. Civera and R. Triebel,
Information-Driven Direct RGB-D Odometry,
*IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2020, Oral Presentation.

Multi-path Learning for Object Pose Estimation Across Domains,

[C78] J. Wenger, H. Kjellström and R. Triebel,
Non-Parametric Calibration for Classification,
*International Conference on Artificial Intelligence and Statistics (AISTATS)*, 2020.

Visual-Inertial Telepresence for Aerial Manipulation,

[C80] Z. Ye, T. Möllenhoff, T. Wu and D. Cremers,
Optimization of Graph Total Variation via Active-Set-based Combinatorial Reconditioning,
*International Conference on Artificial Intelligence and Statistics (AISTATS)*, 2020.

[C81] J. Lee, M. Humt, J. Feng and R. Triebel,
Estimating Model Uncertainty of Neural Networks in Sparse Information Form,

[C82] J. Liu, I. Chiotellis, R. Triebel and D. Cremers,
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*European Conference on Machine Learning and Data Mining (ECML-PKDD)*, 2020.

[C83] M. Denninger and R. Triebel,
3D Scene Reconstruction from a Single Viewport,
[C84] J. Du, R. Wang and D. Cremers,

DH3D: Deep Hierarchical 3D Descriptors for Robust Large-Scale 6DoF Relocalization,

European Conference on Computer Vision (ECCV), 2020, Spotlight Presentation.

[C85] M. Sewtz, T. Bodenmüller and R. Triebel,

Robust MUSIC-Based Sound Source Localization in Reverberant and Echoic Environments,


[C86] C. Gentil, M. Vayugundla, R. Giubilato, W. Stürzl, T.A. Vidal-Calleja and R. Triebel,

Gaussian Process Gradient Maps for Loop-Closure Detection in Unstructured Planetary Environments,


[C87] C. Sommer, Y. Sun, E. Bylow and D. Cremers,

PrimiTect: Fast Continuous Hough Voting for Primitive Detection,


[C88] L. Koestler, N. Yang, R. Wang and D. Cremers,

Learning Monocular 3D Vehicle Detection without 3D Bounding Box Labels,


[C89] P. Wenzel, R. Wang, N. Yang, Q. Cheng, Q. Khan, L. von Stumberg, N. Zeller and D. Cremers,

4Seasons: A Cross-Season Dataset for Multi-Weather SLAM in Autonomous Driving,


[C90] B. Holzschuh, Z. Lähner and D. Cremers,

Simulated Annealing for 3D Shape Correspondence,


[C91] M. Aygün, Z. Lähner and D. Cremers,

Unsupervised Dense Shape Correspondence using Heat Kernels,


[C92] W. Boerdijk, M. Sundermeyer, M. Durner and R. Triebel,

Self-Supervised Object-in-Gripper Segmentation from Robotic Motions,

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[C93] F. Schiel, A. Hagengruber, J. Vogel and R. Triebel,

Incremental learning of EMG-based control commands using Gaussian Processes,

Conference on Robot Learning (CoRL), 2020.

[C94] M. Stoiber, M. Pfanne, K. Strobl, R. Triebel and A. Albu-Schaeffer,

A Sparse Gaussian Approach to Region-Based 6DoF Object Tracking,

Asian Conference on Computer Vision, 2020, Best Paper Award.

[C95] L. Meyer, K. Strobl and R. Triebel,

Robust Vision-Based Pose Correction for a Robotic Manipulator using Active Markers,

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[C96] N. Demmel, M. Gao, E. Laude, T. Wu and D. Cremers,
\textit{Distributed Photometric Bundle Adjustment},
\textit{International Conference on 3D Vision (3DV)}, 2020, \text{Oral Presentation}.

[C97] L. von Stumberg, P. Wenzel, N. Yang and D. Cremers,
\textit{LM-Reloc: Levenberg-Marquardt Based Direct Visual Relocalization},

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

[C99] B. Haefner, Y. Queau and D. Cremers,
\textit{Photometric Segmentation: Simultaneous Photometric Stereo and Masking},
\textit{International Conference on 3D Vision (3DV)}, Quebec City, Canada, September 2019, \text{Spotlight Presentation}.

[C100] B. Haefner, Z. Ye, M. Gao, T. Wu, Y. Queau and D. Cremers,
\textit{Variational Uncalibrated Photometric Stereo under General Lighting},
\textit{IEEE/CVF International Conference on Computer Vision (ICCV)}, Seoul, South Korea, October 2019.

[C101] T. Yenamandra, F. Bernard, J. Wang, F. Mueller and C. Theobalt,
\textit{Convex Optimisation for Inverse Kinematics},
\textit{2019 International Conference on 3D Vision (3DV)}, 318-327, 2019, \text{Oral Presentation}.

[C102] A. Vasilev, V. Golkov, M. Meissner, I. Lipp, E. Sgarlata, V. Tomassini, D. K. Jones and D. Cremers,
\textit{q-Space Novelty Detection with Variational Autoencoders},
\textit{MICCAI 2019 International Workshop on Computational Diffusion MRI}, 2019, \text{Oral Presentation}.

[C103] P. Swazinna, V. Golkov, I. Lipp, E. Sgarlata, V. Tomassini, D. K. Jones and D. Cremers,
\textit{Negative-Unlabeled Learning for Diffusion MRI},

[C104] D. Schubert, N. Demmel, L. von Stumberg, V. Usenko and D. Cremers,
\textit{Rolling-Shutter Modelling for Visual-Inertial Odometry},

[C105] M. Eisenberger, Z. Lähner and D. Cremers,
\textit{Divergence-Free Shape Correspondence by Deformation},

[C106] E. Bylow, R. Maier, F. Kahl and C. Olsson,
\textit{Combining Depth Fusion and Photometric Stereo for Fine-Detailed 3D Models},
\textit{Scandinavian Conference on Image Analysis (SCIA)}, Norrköping, Sweden, June 2019, \text{Oral Presentation}, received the SCIA 2019 Honourable Mention award.
[C107] E. Laude, T. Wu and D. Cremers,
Optimization of Inf-Convolution Regularized Nonconvex Composite Problems,
*International Conference on Artificial Intelligence and Statistics (AISTATS)*, 2019.

[C108] T. Möllenhoff and D. Cremers,
Lifting Vectorial Variational Problems: A Natural Formulation based on Geometric Measure Theory and Discrete Exterior Calculus,

[C109] T. Möllenhoff and D. Cremers,
Flat Metric Minimization with Applications in Generative Modeling,

[C110] T. Frerix and J. Bruna,
Approximating Orthogonal Matrices with Effective Givens Factorization,

[C111] Q. Khan, P. Wenzel, D. Cremers and L. Leal-Taixe,
Towards Generalizing Sensorimotor Control Across Weather Conditions,

[C112] E.Y. Puang, P. Lehner, Z.C. Marton, M. Durner, R. Triebel and A. Albu-Schäffer,
Visual Repetition Sampling for Robot Manipulation Planning,

[C113] M. Moeller, T. Möllenhoff and D. Cremers,
Controlling Neural Networks via Energy Dissipation,
*International Conference on Computer Vision (ICCV)*, Seoul, South Korea, 10 2019.

[C114] E. Jung, N. Yang and D. Cremers,
Multi-Frame GAN: Image Enhancement for Stereo Visual Odometry in Low Light,
*Conference on Robot Learning (CoRL)*, 2019, *Full Oral Presentation*.

[C115] S. Weiss, R. Maier, R. Westermann, D. Cremers and N. Thürey,
Sparse Surface Constraints for Combining Physics-based Elasticity Simulation and Correspondence-Free Object Reconstruction,

[C116] P. Brechet, T. Wu, T. Möllenhoff and D. Cremers,
Informative GANs via Structured Regularization of Optimal Transport,

[C117] F. Steidle, W. Stürzl and R. Triebel,
Visual-inertial sensor fusion with a bio-inspired polarization compass for navigation of MAVs,

[C118] J. Feng, M. Durner, Z.-C. Marton, F. Balint-Benczedi and R. Triebel,
Introspective Robot Perception using Smoothed Predictions from Bayesian Neural Networks,
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[C119] R. Henschel, L. Leal-Taixe, D. Cremers and B. Rosenhahn, 
**Fusion of Head and Full-Body Detectors for Multi-Object Tracking**, 

[C120] C. Sommer and D. Cremers, 
**Joint Representation of Primitive and Non-primitive Objects for 3D Vision**, 

[C121] 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.

[C122] B. Haefner, Y. Queau, T. Möllenhoff and D. Cremers, 
**Fight ill-posedness with ill-posedness: Single-shot variational depth super-resolution from shading**, 

**Discrete-Continuous ADMM for Transductive Inference in Higher-Order MRFs**, 
*IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2018.

[C124] C Domokos, FR. Schmidt and D Cremers, 
**MRF Optimization with Separable Convex Prior on Partially Ordered Labels**, 

[C125] 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.

[C126] 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.

[C127] R Scona, M Jaimez, YR. Petillot, M Fallon and D Cremers, 
**StaticFusion: Background Reconstruction for Dense RGB-D SLAM in Dynamic Environments**, 

[C128] 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**, 
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[C141] M. Sundermeyer, Z. Marton, M. Durner, M. Brucker and R. Triebel,
*Implicit 3D Orientation Learning for 6D Object Detection from RGB Images*,
*European Conference on Computer Vision (ECCV)*, September 2018, Best Paper Award.

[C142] M. Denninger and R. Triebel,
*Persistent Anytime Learning of Objects from Unseen Classes*,

[C143] I. Grixa, P. Schulz, W. Stürzl and R. Triebel,
*Appearance-Based Along-Route Localization for Planetary Missions*,

[C144] I. Chiotellis, F. Zimmermann, D. Cremers and R. Triebel,
*Incremental Semi-Supervised Learning from Streams for Object Classification*,

[C145] V. Estellers, F. Schmidt and D. Cremers,
*Robust Fitting of Subdivision Surfaces for Smooth Shape Analysis*,
*Proc. of the Int. Conference on 3D Vision (3DV)*, September 2018, Received the Best Paper Award at 3DV 2018.

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

[C147] C. Nissler, M. Durner, Z.-C. Marton and R. Triebel,
*Simultaneous Calibration and Mapping*,

[C148] 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.

[C149] M. Benning, M. Möller, R. Z. Nossek, M. Burger, D. Cremers and G. Gilboa,
*Nonlinear Spectral Image Fusion*,

[C150] D. Bender, W. Koch and D. Cremers,
*Map-based drone homing using shortcuts*,
[C151] G. Kuschk, A. Bozic and D. Cremers,
Real-time variational stereo reconstruction with applications to large-scale dense SLAM,
*IEEE Intelligent Vehicles Symposium, IV 2017, Los Angeles, CA, USA, June 11-14, 2017,*

[C152] 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.

[C153] 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,
*IEEE Conference on Computer Vision and Pattern Recognition (CVPR),* 2017.

[C154] L. Ma, J. Stueckler, C. Kerl and D. Cremers,
Multi-View Deep Learning for Consistent Semantic Mapping with RGB-D Cameras,

[C155] M. Vestner, R. Litman, E. Rodola, A. Bronstein and D. Cremers,
Product Manifold Filter: Non-Rigid Shape Correspondence via Kernel Density Estimation in the Product Space,
*IEEE Conference on Computer Vision and Pattern Recognition (CVPR),* 2017.

[C156] M. Dzitsiuk, J. Sturm, R. Maier, L. Ma and D. Cremers,
De-noising, Stabilizing and Completing 3D Reconstructions On-the-go using Plane Priors,

[C157] L. von Stumberg, V. Usenko, J. Engel, J. Stueckler and D. Cremers,
From Monocular SLAM to Autonomous Drone Exploration,

[C158] F. Walch, C. Hazirbas, L. Leal-Taixe, T. Sattler, S. Hilsenbeck and D. Cremers,
Image-based localization using LSTMs for structured feature correlation,

[C159] J.C. Peeken, C. Knie, V. Golkov, K. Kessel, F. Pasa, Q. Khan, M. Seroglazov, J. Kukacka,
T. Goldberg, L. Richter, J. Reeb, B. Rost, F. Pfeiffer, D. Cremers, F. Nüsslin and S.E. Combs,
Establishment of an interdisciplinary workflow of machine learning-based Radiomics in sarcoma patients,

[C160] Y. Queau, M. Pizenberg, J.-D. Durou and D. Cremers,
Microgeometry capture and RGB albedo estimation by photometric stereo without demosaicing,
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[C172] R. Maier, R. Schaller and D. Cremers,
Efficient Online Surface Correction for Real-time Large-Scale 3D Reconstruction,
British Machine Vision Conference (BMVC), London, United Kingdom, September 2017.

[C173] J. Geiping, H. Dirks and D. Cremers,
Multiframe Motion Coupling for Video Super Resolution,

[C174] 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.

[C175] R. Maier, K. Kim, D. Cremers, J. Kautz and M. Niessner,
Intrinsic3D: High-Quality 3D Reconstruction by Joint Appearance and Geometry Optimization with Spatially-Varying Lighting,
International Conference on Computer Vision (ICCV), Venice, Italy, October 2017.

[C176] S. Peng, B. Haefner, Y. Queau and D. Cremers,
Depth Super-Resolution Meets Uncalibrated Photometric Stereo,
IEEE International Conference on Computer Vision Workshops (ICCVW), 2017, Oral Presentation at ICCV Workshop on Color and Photometry in Computer Vision.

[C177] 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.

[C178] T. Möllenhoff and D. Cremers,
Sublabel-Accurate Discretization of Nonconvex Free-Discontinuity Problems,
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[C179] M Ullrich, H Ali, M Durner, ZC Marton and R Triebel,
Selecting CNN Features for Online Learning of 3D Objects,

[C180] C Nissler, ZC Marton, H Kisner, U Thomas and R Triebel,
A Method for Hand-Eye and Camera-to-Camera Calibration for Limited Fields of View,

[C181] TS Wang, ZC Marton, M Brucker and R Triebel,
How Robots Learn to Classify New Objects Trained from Small Data Sets,
Conference on Robot Learning (CoRL), 2017.

[C182] M Durner, S Kriegel, S Riedel, M Brucker, ZC Marton, F Balint-Benczedi and R Triebel,
Experience-based Optimization of Robotic Perception,
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[C183] Y. Queau, J. Melou, F. Castan, D. Cremers and J.-D. Durou, 
A Variational Approach to Shape-from-shading Under Natural Illumination, 

[C184] F. Bernard, F. R. Schmidt, J. Thunberg and D. Cremers, 
A Combinatorial Solution to Non-Rigid 3D Shape-to-Image Matching, 

[C185] Y. Kuznietsov, J. Stueckler and B. Leibe, 
Semi-Supervised Deep Learning for Monocular Depth Map Prediction, 

[C186] A. Kasyanov, F. Engelmann, J. Stueckler and B. Leibe, 
Keyframe-Based Visual-Inertial Online SLAM with Relocalization, 

[C187] F. Engelmann, J. Stueckler and B. Leibe, 
SAMP: Shape and Motion Priors for 4D Vehicle Reconstruction, 

[C188] L. Cosmo, A. Albarelli, F. Bergamasco, A. Torsello, E. Rodola and D. Cremers, 
A game-theoretical approach for joint matching of multiple feature throughout unordered images, 

[C189] M. Jaimez, J. G. Monroy and J. Gonzalez-Jimenez, 
Planar Odometry from a Radial Laser Scanner. A Range Flow-based Approach, 
Proc. of the IEEE Int. Conf. on Robotics and Automation (ICRA), 4479-4485, 2016.

[C190] 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, 

[C191] V. Golkov, T. Sprenger, J. I. Sperl, M. I. Menzel, M. Czisch, P. Sämann and D. Cremers, 
Model-Free Novelty-Based Diffusion MRI, 
IEEE International Symposium on Biomedical Imaging (ISBI), Prague, Czech Republic, apr 2016.

[C192] 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%).

[C193] Z. Lähner, E. Rodola, F. R. Schmidt, M. M. Bronstein and D. Cremers, 
Efficient Globally Optimal 2D-to-3D Deformable Shape Matching, 
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[C194] V. Usenko, J. Engel, J. Stueckler and D. Cremers,
Direct Visual-Inertial Odometry with Stereo Cameras,

[C195] 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.

[C197] 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.

[C198] 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.

[C199] L. Ma, C. Kerl, J. Stueckler and D. Cremers,
CPA-SLAM: Consistent Plane-Model Alignment for Direct RGB-D SLAM,

[C200] J. Engel, V. Usenko and D. Cremers,
A Photometrically Calibrated Benchmark For Monocular Visual Odometry,

[C201] J. Engel, V. Koltun and D. Cremers,
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[C202] E. Laude, T. Möllenhoff, M. Moeller, J. Lellmann and D. Cremers,
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*European Conference on Computer Vision (ECCV)*, October 2016.

[C203] D. Bender, D. Cremers and W. Koch,
A position free boresight calibration for INS-camera systems,

[C204] 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.

[C205] T. Windheuser and D. Cremers,
A Convex Solution to Spatially-Regularized Correspondence Problems,
*European Conference on Computer Vision (ECCV)*, October 2016.


[C217] J. Stühmer and D. Cremers,
*A Fast Projection Method for Connectivity Constraints in Image Segmentation*,

[C218] 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.

[C219] 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.

[C220] 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*,

[C222] 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*,

[C223] A. Menini, V. Golkov and F. Wiesinger,
*Free-Breathing, Self-Navigated RUFIS Lung Imaging with Motion Compensated Image Reconstruction*,

*q-Space Deep Learning for Twelve-Fold Shorter and Model-Free Diffusion MRI Scans*,

[C225] 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.
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V. Evers, M. Fiore, H. Hung, O. A. I Ramirez, M. Joosse, H. Khambhaita, T. Kucner, B.
Leibe, A. J. Lilienthal, T. Linder, M. Lohse, M. Magnusson, B. Okal, L. Palmieri, U. Rafi,
M. van Rooij and L. Zhang,
SPENCER: A Socially Aware Service Robot for Passenger Guidance and Help
in Busy Airports,

[C227] D. Holz, A. Topalidou-Kyniazopoulou, J. Stueckler and S. Behnke,
Real-Time Object Detection, Localization and Verification for Fast Robotic
Depalletizing,

[C228] J. Engel, J. Stueckler and D. Cremers,
Large-Scale Direct SLAM with Stereo Cameras,

[C229] D. Caruso, J. Engel and D. Cremers,
Large-Scale Direct SLAM for Omnidirectional Cameras,

[C230] Y. Tao, R. Triebel and D. Cremers,
Semi-supervised Online Learning for Efficient Classification of Objects in 3D
Data Streams,

[C231] 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.

[C232] V. Usenko, J. Engel, J. Stueckler and D. Cremers,
Reconstructing Street-Scenes in Real-Time From a Driving Car,

[C233] M. Jaimez, M. Souiai, J. Stueckler, J. Gonzalez-Jimenez and D. Cremers,
Motion Cooperation: Smooth Piece-Wise Rigid Scene Flow from RGB-D
Images,

[C234] 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, Recom-
Received the Best Paper Award.

[C235] 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.

[C236] 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.
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[C237] 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.

[C238] 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,
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[C240] J. Duran, M. Moeller, C. Sbert and D. Cremers,
A Novel Framework for Nonlocal Vectorial Total Variation Based on $\ell^{p,q,r}$ 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,

[C244] 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,

[C246] D. B. AD. CJ. C D. Weikersdorfer,
Event-based 3D SLAM with a depth-augmented dynamic vision sensor,
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[C247] F. Steinbruecker, J. Sturm and D. Cremers,
Volumetric 3D Mapping in Real-Time on a CPU,
International Conference on Robotics and Automation (ICRA), Hongkong, China, 2014.

[C248] E. Rodola, S. R Bulo, T. Windheuser, M. Vestner and D. Cremers,
Dense Non-Rigid Shape Correspondence Using Random Forests,

[C249] Y. Kee, M. Souiai, D. Cremers and J. Kim,
Sequential Convex Relaxation for Mutual-Information-Based Unsupervised
Figure-Ground Segmentation,

[C250] H. Alvarez, L.M. Paz, J. Sturm and D. Cremers,
Collision Avoidance for Quadrotors with a Monocular Camera,

[C251] J. Engel, T. Schöps and D. Cremers,
LSD-SLAM: Large-Scale Direct Monocular SLAM,
European Conference on Computer Vision (ECCV), September 2014, Oral Presentation.

[C252] T. Schöps, J. Engel and D. Cremers,
Semi-Dense Visual Odometry for AR on a Smartphone,
International Symposium on Mixed and Augmented Reality, September 2014, Best Short Paper Award.

[C253] T. Windheuser, M. Vestner, E. Rodola, R. Triebel and D. Cremers,
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[C254] M. Strobel, J. Diebold and D. Cremers,
Flow and Color Inpainting for Video Completion,
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[C255] R. Maier, J. Sturm and D. Cremers,
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German Conference on Pattern Recognition (GCPR), Münster, Germany, September 2014, Oral Presentation.

[C256] 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.

[C257] M. R. Oswald and D. Cremers,
Surface Normal Integration for Convex Space-time Multi-view Reconstruction,
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[C258] C. Nieuwenhuis, S. Hawe, M. Kleinsteuber and D. Cremers,
Co-Sparse Textural Similarity for Interactive Segmentation,
European Conference on Computer Vision (ECCV), 2014.

[C259] M. R. Oswald, J. Stühmer and D. Cremers,
Generalized Connectivity Constraints for Spatio-temporal 3D Reconstruction,
E. Strekalovskiy and D. Cremers,
Real-Time Minimization of the Piecewise Smooth Mumford-Shah Functional,

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

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

M. Andreux, E. Rodola, M. Aubry and D. Cremers,
Anisotropic Laplace-Beltrami Operators for Shape Analysis,
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O. Dunkley, J. Engel, J. Sturm and D. Cremers,
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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.

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

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.

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.

C. Kerl, M. Souiai, J. Sturm and D. Cremers,
Towards Illumination-invariant 3D Reconstruction using ToF RGB-D Cameras,
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J. Stueckler and S. Behnke,
Adaptive Tool-Use Strategies for Anthropomorphic Service Robots,
Proc. of the 14th IEEE-RAS International Conference on Humanoid Robots (Humanoids),
to appear, nov 2014.
[C271] D. Droeschel, J. Stueckler and S. Behnke,
Local Multi-Resolution Surfel Grids for MAV Motion Estimation and 3D Mapping,

[C272] 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.

[C273] J. Stueckler and S. Behnke,
Efficient deformable registration of multi-resolution surfel maps for object manipulation skill transfer,

[C274] D. Droeschel, J. Stueckler and S. Behnke,
Local multi-resolution representation for 6D motion estimation and mapping with a continuously rotating 3D laser scanner,
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[C276] F. R. Schmidt, T. Windheuser, U. Schlickewei and D. Cremers,
Dense Elastic 3D Shape Matching,

[C277] J Bergbauer and S Tari,
Wimmelbild Analysis with Approximate Curvature Coding Distance Images,

[C278] J Bergbauer and S Tari,
Top-down visual search in Wimmelbild,

[C279] F. Bergamasco, A. Albarelli, E. Rodola and A. Torsello,
Can a fully unconstrained imaging model be applied effectively to central cameras?,

[C280] M. Souiai, C. Nieuwenhuis, E. Strekalovskiy and D. Cremers,
Convex Optimization for Scene Understanding,
ICCV Workshop on Graphical Models for Scene Understanding, 2013.
[C281] 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.

[C282] V. Golkov, T. Sprenger, A. Menini, M.I. Menzel, D. Cremers and J.I. Sperl,
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[C283] 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.

[C284] 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,
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[C285] 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,
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SNR-dependent Quality Assessment of Compressed-Sensing-Accelerated Diffusion Spectrum Imaging Using a Fiber Crossing Phantom,

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[C289] 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.
[C290] 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, 

Knowing When We Don’t Know: Introspective Classification for Mission-Critical Decision Making, 

[C293] A. SD. C D. Weikersdorfer, 
Depth-adative Supervoxels for RGB-D Video Segmentation, 

[C294] R. Triebel, H. Grimmett and I. Posner, 
Confidence Boosting: Improving the Introspectiveness of a Boosted Classifier for Efficient Learning, 

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[C296] E. Bylow, J. Sturm, C. Kerl, F. Kahl and D. Cremers, 
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[C297] 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.

[C298] 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.

[C299] M. Souiai, E. Strekalovskiy, C. Nieuwenhuis and D. Cremers, 
A Co-occurrence Prior for Continuous Multi-Label Optimization, 

[C300] F. Stangl, M. Souiai and D. Cremers, 
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*35th German Conference on Pattern Recognition (GCPR)*, 2013.
[C301] T. Möllenhoff, C. Nieuwenhuis, E. Toepppe and D. Cremers,
Efficient Convex Optimization for Minimal Partition Problems with Volume Constraints,

[C302] C. Kerl, J. Sturm and D. Cremers,
Dense Visual SLAM for RGB-D Cameras,

[C303] T. Naseer, J. Sturm and D. Cremers,
FollowMe: Person Following and Gesture Recognition with a Quadrocopter,

[C304] 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.

[C305] 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.

[C306] 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.

[C307] 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.

[C308] E. Rodola, T. Harada, Y. Kuniyoshi and D. Cremers,
Efficient Shape Matching using Vector Extrapolation,

[C309] 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.

[C310] 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.

[C311] 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.
[C312] C. Nieuwenhuis, E. Strekalovskiy and D. Cremers,
Proportion Priors for Image Sequence Segmentation,
*IEEE International Conference on Computer Vision (ICCV)*, Sydney, Australia, December 2013.

[C313] J. Stühmer, P. Schröder and D. Cremers,
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*IEEE International Conference on Computer Vision (ICCV)*, Sydney, Australia, December 2013, **Oral Presentation**.

[C314] 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.

[C315] M. R. Oswald and D. Cremers,
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*ICCV Workshop on Dynamic Shape Capture and Analysis (4DMOD)*, 2013.

[C316] 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.

[C317] 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.

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

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[M2] C Hazirbas, 
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[M10] M. Souiai, 
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