2020

Journal Articles

[J1] E. Laude, P. Ochs and D. Cremers,
Bregman Proximal Mappings and Bregman-Moreau Envelopes under Relative Prox-Regularity,

[J2] B. Haefner, S. Peng, A. Verma, Y. Queau and D. Cremers,
Photometric Depth Super-Resolution,

Deep Learning for Virtual Screening: Five Reasons to Use ROC Cost Functions,

Visual-Inertial Mapping with Non-Linear Factor Recovery,

[J5] L. von Stumberg, P. Wenzel, Q. Khan and D. Cremers,
GN-Net: The Gauss-Newton Loss for Multi-Weather Relocalization,

[J6] C. Sommer, Y. Sun, L. J. Guibas, D. Cremers and T. Birdal,
From Planes to Corners: Multi-Purpose Primitive Detection in Unorganized 3D Point Clouds,

Conference and Workshop Papers

[C1] 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.

[C2] R. Wang, N. Yang, J. Stueckler and D. Cremers,
DirectShape: Photometric Alignment of Shape Priors for Visual Vehicle Pose and Shape Estimation,

[C3] 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.


### 2019 Journal Articles

[J2] M. C. Mukkamala, F. Westerkamp, E. Laude, D. Cremers and P. Ochs,
Bregman Proximal Framework for Deep Linear Neural Networks,

[J3] M. Eisenberger, Z. Lähner and D. Cremers,
Divergence-Free Shape Correspondence by Deformation,

[J4] H Tjaden, U Schwancke, E Schömer and D Cremers,
A Region-based Gauss-Newton Approach to Real-Time Monocular Multiple
Object Tracking,
IEEE Transactions on Pattern Analysis and Machine Intelligence,

[J5] T. Frerix, M. Niesner and D. Cremers,
Homogeneous Linear Inequality Constraints for Neural Network Activations,

A Non-invasive 3D Body Scanner and Software Tool towards Analysis of Scoliosis,

[J7] F. Pasa, V. Golkov, F. Pfeiffer, D. Cremers and D. Pfeiffer,
Efficient Deep Network Architectures for Fast Chest X-Ray Tuberculosis
Screening and Visualization,

[J8] J. Schuchardt, V. Golkov and D. Cremers,
Learning to Evolve,

[J9] L. D Libera, V. Golkov, Y. Zhu, A. Mielke and D. Cremers,
Deep Learning for 2D and 3D Rotatable Data: An Overview of Methods,

Conference and Workshop Papers

Lähner, K. Li, O. Litany, T. Remez, E. Rodola, B. C. Russell, Y. Sahillioglu, R. Slossberg,
G. K. L. Tam, M. Vestner, Z. Wu and J. Yang,
Shape Correspondence with Isometric and Non-Isometric Deformations,
Silvia Biasotti, Guillaume Lavoué and Remco C. Veltkamp(Eds.), 12th Eurographics Work-
shop on 3D Object Retrieval, 3DOR@Eurographics 2019, Genoa, Italy, May 5-6, 2019,

[C2] B. Haefner, Y. Queau and D. Cremers,
Photometric Segmentation: Simultaneous Photometric Stereo and Masking,
International Conference on 3D Vision (3DV), Quebec City, Canada, September 2019,
Spotlight Presentation.

[C3] B. Haefner, Z. Ye, M. Gao, T. Wu, Y. Queau and D. Cremers,
Variational Uncalibrated Photometric Stereo under General Lighting,
International Conference on Computer Vision (ICCV), Seoul, South Korea, October 2019.


2018

Journal Articles

[J1] J. Engel, V. Koltun and D. Cremers,
Direct Sparse Odometry,

[J2] N. Yang, R. Wang, X. Gao and D. Cremers,
Challenges in Monocular Visual Odometry: Photometric Calibration, Motion Bias and Rolling Shutter Effect,

[J3] Y. Queau, B. Durix, T. Wu, D. Cremers, F. Lauze and J.-D. Durou,
LED-based Photometric Stereo: Modeling, Calibration and Numerical Solution,

[J4] B. Bringmann, D. Cremers and F. Krahmer,
The homotopy method revisited: Computing solution paths of L1-regularized problems,

[J5] J. Melou, Y. Queau, J.-D. Durou, F. Castan and D. Cremers,
Variational Reflectance Estimation from Multi-view Images,

[J6] P. Bergmann, R. Wang and D. Cremers,
Online Photometric Calibration of Auto Exposure Video for Realtime Visual Odometry and SLAM,

[J7] E. Aljalbout, V. Golkov, Y. Siddiqui, M. Strobel and D. Cremers,
Clustering with Deep Learning: Taxonomy and New Methods,

[J8] N. Mayer, E Ilg, P. Fischer, C Hazirbas, D. Cremers, A. Dosovitskiy and T. Brox,
What Makes Good Synthetic Training Data for Learning Disparity and Optical Flow Estimation?,

Omnidirectional DSO: Direct Sparse Odometry with Fisheye Cameras,

[J10] L. Ma, J. Stueckler, T. Wu and D. Cremers,
Detailed Dense Inference with Convolutional Neural Networks via Discrete Wavelet Transform,
Aug 2018.

Conference and Workshop Papers


[C23] 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.

[C24] 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.

2017
Journal Articles

[J1] G. Kuschk, P. d’Angelo, D. Gaudrie, P. Reinartz and D. Cremers,
Spatially Regularized Fusion of Multiresolution Digital Surface Models,

[J2] D. Cremers, L. Leal-Taixe and R. Vidal,
Deep Learning for Computer Vision (Dagstuhl Seminar 17391),
Dagstuhl Reports, 7(9): 109-125, 2017.

[J3] Y. Kee, Y. Lee, M. Souiai, D. Cremers and J. Kim,
Sequential Convex Programming for Computing Information-Theoretic Minimal Partitions: Nonconvex Nonsmooth Optimization,

[J4] D Cremers,
Computer Vision für 3-D-Rekonstruktion - Vom Nischenthema zum Mainstream,

[J5] E. Rodola, L. Cosmo, M. M. Bronstein, A. Torsello and D. Cremers,
Partial Functional Correspondence,

[J6] L. Cosmo, E. Rodola, A. Albarelli, F. Memoli and D. Cremers,
Consistent Partial Matching of Shape Collections via Sparse Modeling,

3D Deep Learning for Biological Function Prediction from Physical Fields,

Genetic defects in s-spectrin and tau sensitize C. elegans axons to movement-induced damage via torque-tension coupling,

Tau Like Proteins Reduce Torque Generation in Microtubule Bundles,
Author: Cremers
List of Publications

[J10] E Rodola, M Möller and D Cremers,
Regularized Pointwise Map Recovery from Functional Correspondence,

[J11] J. Kukacka, V. Golkov and D. Cremers,
Regularization for Deep Learning: A Taxonomy,

Conference and Workshop Papers

[C1] M. Benning, M. Möller, R. Z. Nossek, M. Burger, D. Cremers and G. Gilboa,
Nonlinear Spectral Image Fusion,

[C2] D. Bender, W. Koch and D. Cremers,
Map-based drone homing using shortcuts,

[C3] G. Kuschk, A. Bozic and D. Cremers,
Real-time variational stereo reconstruction with applications to large-scale dense SLAM,

[C4] 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.

[C5] M. Jaimez, T. J. Cashman, A. Fitzgibbon, J. González-Jimenez and D. Cremers,
An Efficient Background Term for 3D Reconstruction and Tracking with Smooth Subdivision Surface Models,

[C6] L. Ma, J. Stueckler, C. Kerl and D. Cremers,
Multi-View Deep Learning for Consistent Semantic Mapping with RGB-D Cameras,

[C7] 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,

[C8] M. Dzitsiuk, J. Sturm, R. Maier, L. Ma and D. Cremers,
De-noising, Stabilizing and Completing 3D Reconstructions On-the-go using Plane Priors,
[C9] L. von Stumberg, V. Usenko, J. Engel, J. Stueckler and D. Cremers,  
From Monocular SLAM to Autonomous Drone Exploration,  
European Conference on Mobile Robots (ECMR), September 2017.

[C10] F. Walch, C. Hazirbas, L. Leal-Taixe, T. Sattler, S. Hilsenbeck and D. Cremers,  
Image-based localization using LSTMs for structured feature correlation,  

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,  

[C12] Y. Queau, M. Pizenberg, J.-D. Durou and D. Cremers,  
Microgeometry capture and RGB albedo estimation by photometric stereo without demosaicing,  
International Conference on Quality Control by Artificial Vision (QCAV), 2017.

[C13] P. Haeusser, A. Mordvintsev and D. Cremers,  
Learning by Association - A versatile semi-supervised training method for neural networks,  

[C14] M. Slavcheva, M. Baust, D. Cremers and S. Ilic,  
KillingFusion: Non-rigid 3D Reconstruction without Correspondences,  

[C15] V. Usenko, L. von Stumberg, A. Pangercic and D. Cremers,  
Real-Time Trajectory Replanning for MAVs using Uniform B-splines and a 3D Circular Buffer,  
International Conference on Intelligent Robots and Systems (IROS), Vancouver, Canada,  
Sep 2017, Best Paper Award - Finalist ()

[C16] Y. Queau, T. Wu, F. Lauze, J.-D. Durou and D. Cremers,  
A Non-Convex Variational Approach to Photometric Stereo under Inaccurate Lighting,  
IEEE Conference on Computer Vision and Pattern Recognition (CVPR), Honolulu, USA,  
2017.

[C17] T. Meinhardt, M. Moeller, C. Hazirbas and D. Cremers,  
Learning Proximal Operators: Using Denoising Networks for Regularizing Inverse Imaging Problems,  

One-Shot Video Object Segmentation,  
IEEE Conference on Computer Vision and Pattern Recognition (CVPR), Honolulu, USA,  
2017.

[C19] Y. Queau, J. Melou, J.-D. Durou and D. Cremers,  
Dense Multi-view 3D-reconstruction Without Dense Correspondences,  
Cremers List of Publications

[C20] P. Haeusser, T. Frerix, A. Mordvintsev and D. Cremers,
Associative Domain Adaptation,

[C21] Y. Queau, M. Pizenberg, D. Cremers and J.-D. Durou,
Stereophotometrie microscopique sans demosaïquage,
GRETSI, Juan-les-Pins, USA, 2017.

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

[C23] 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.

[C24] J. Geiping, H. Dirks and D. Cremers,
Multiframe Motion Coupling for Video Super Resolution,

[C25] 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.

[C26] S. Peng, B. Haefner, Y. Queau and D. Cremers,
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.

[C27] 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.

[C28] T. Möllenhoff and D. Cremers,
Sublabel-Accurate Discretization of Nonconvex Free-Discontinuity Problems,
International Conference on Computer Vision (ICCV), Venice, Italy, October 2017.

[C29] Y. Queau, J. Melou, F. Castan, D. Cremers and J.-D. Durou,
A Variational Approach to Shape-from-shading Under Natural Illumination,

[C30] F. Bernard, F. R. Schmidt, J. Thunberg and D. Cremers,
A Combinatorial Solution to Non-Rigid 3D Shape-to-Image Matching,
2016
Journal Articles

[J1] J. Diebold, C. Nieuwenhuis and D. Cremers,
Midrange Geometric Interactions for Semantic Segmentation,

[J2] J. Duran, M. Möller, C. Sbert and D. Cremers,
Collaborative Total Variation: A General Framework for Vectorial TV Models,

[J3] M. Burger, G. Gilboa, M. Möller, L. Eckardt and D. Cremers,
Spectral Decompositions Using One-Homogeneous Functionals,

Anisotropic Diffusion Descriptors,

[J5] V. Golkov, A. Dosovitskiy, J. I. Sperl, M. I. Menzel, M. Czisch, P. Sämann, T. Brox and
D. Cremers,
q-Space Deep Learning: Twelve-Fold Shorter and Model-Free Diffusion MRI Scans,
IEEE Transactions on Medical Imaging, 35: 2016, Special Issue on Deep Learning.

[J6] O. Litany, E. Rodola, A. M. Bronstein, M. M. Bronstein and D. Cremers,
Non-Rigid Puzzles,
Computer Graphics Forum, 35(5): 135-143, 2016, Received the Best Paper Award at
SGP 2016.

[J7] M. Vestner, R. Litman, A. Bronstein, E. Rodola and D. Cremers,
Bayesian Inference of Bijective Non-Rigid Shape Correspondence,

Book Chapters

[BC1] M. Vestner, E. Rodola, T. Windheuser, RBS. Bulo and D. Cremers,
Applying Random Forests to the Problem of Dense Non-rigid Shape Correspondence,

Conference and Workshop Papers

[C1] 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,

[C2] 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,
[C3] 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.

[C4] 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%).

[C5] 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.

[C6] V. Usenko, J. Engel, J. Stueckler and D. Cremers, 
Direct Visual-Inertial Odometry with Stereo Cameras, 
International Conference on Robotics and Automation (ICRA), May 2016.

[C7] A. Narr, R. Triebel and D. Cremers, 
Stream-based Active Learning for Efficient and Adaptive Classification of 3D Objects, 
International Conference on Robotics and Automation (ICRA), May 2016.

SHREC16: Matching of Deformable Shapes with Topological Noise, 
Proc. of Eurographics Workshop on 3D Object Retrieval (3DOR), May 2016.

SHREC16: Partial Matching of Deformable Shapes, 
Proc. of Eurographics Workshop on 3D Object Retrieval (3DOR), May 2016.

[C10] 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.

[C11] L. Ma, C. Kerl, J. Stueckler and D. Cremers, 
CPA-SLAM: Consistent Plane-Model Alignment for Direct RGB-D SLAM, 
International Conference on Robotics and Automation (ICRA), May 2016.

[C12] J. Engel, V. Usenko and D. Cremers, 
A Photometrically Calibrated Benchmark For Monocular Visual Odometry, 

[C13] J. Engel, V. Koltun and D. Cremers, 
Direct Sparse Odometry, 

[C14] 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.
[C15] D. Bender, D. Cremers and W. Koch,  
A position free boresight calibration for INS-camera systems,  

[C16] 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.

[C17] T. Windheuser and D. Cremers,  
A Convex Solution to Spatially-Regularized Correspondence Problems,  
*European Conference on Computer Vision (ECCV)*, October 2016.

[C18] S. Sharifzadeh, I. Chiotellis, R. Triebel and D. Cremers,  
Learning to Drive using Inverse Reinforcement Learning and Deep Q-Networks,  
NIPS Workshops, December 2016.

[C19] D. Bender, F. Rouatbi, M. Schikora, D. Cremers and W. Koch,  
Scaling the world of monocular SLAM with INS-measurements for UAS navigation,  

2015  
Journal Articles

[J1] J. Diebold, S. Tari and D. Cremers,  
The Role of Diffusion in Figure Hunt Games,  

[J2] S. Madhogaria, P. M. Baggenstoss, M. Schikora, W. Koch and D. Cremers,  
Car detection by fusion of HOG and causal MRF,  

[J3] M. Klodt, K. Herzog, R. Töpfer and D. Cremers,  
Field phenotyping of grapevine growth using dense stereo reconstruction,  

[J4] E. Rodola, A. Albarelli, D. Cremers and A. Torsello,  
A Simple and Effective Relevance-based Point Sampling for 3D Shapes,  

[J5] R. Mecca, E. Rodola and D. Cremers,  
Realistic Photometric Stereo Using Partial Differential Irradiance Equation Ratios,  

[J6] T. Möllenhoff, E. Strekalovskiy, M. Möller and D. Cremers,  
The Primal-Dual Hybrid Gradient Method for Semiconvex Splittings,  
[J7] Y. Kee, H. Lee, J. Yim, D. Cremers and J. Kim, 
Entropy Minimization for Groupwise Planar Shape Co-alignment and its Applications,

[J8] M. Möller, M. Benning, C. Schönlieb and D. Cremers, 
Variational Depth From Focus Reconstruction,

**Book Chapters**

[BC1] D. Cremers, 
Image Segmentation with Shape Priors: Explicit Versus Implicit Representations,

[BC2] V. Golkov, J. M. Portegies, A. Golkov, R. Duits and D. Cremers, 
Holistic Image Reconstruction for Diffusion MRI,
*Computational Diffusion MRI*, Munich, Germany, Springer, oct 2015, Book Chapter, and Oral Presentation at MICCAI 2015 Workshop on Computational Diffusion MRI.

**Conference and Workshop Papers**

[C1] 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.

[C2] 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.

[C3] 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.

[C4] T. Möllenhoff, E. Strekalovskiy, M. Möller and D. Cremers, 
Low Rank Priors for Color Image Regularization,

[C5] 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.

[C6] J. Stühmer and D. Cremers, 
A Fast Projection Method for Connectivity Constraints in Image Segmentation,
[C7] 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.

[C8] 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.

[C9] D. Mund, R. Triebel and D. Cremers,
Active Online Confidence Boosting for Efficient Object Classification,

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

[C11] 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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[C13] J. Engel, J. Stueckler and D. Cremers,
Large-Scale Direct SLAM with Stereo Cameras,

[C14] D. Caruso, J. Engel and D. Cremers,
Large-Scale Direct SLAM for Omnidirectional Cameras,

[C15] Y. Tao, R. Triebel and D. Cremers,
Semi-supervised Online Learning for Efficient Classification of Objects in 3D Data Streams,

[C16] R. Maier, J. Stueckler and D. Cremers,
Super-Resolution Keyframe Fusion for 3D Modeling with High-Quality Textures,
[C17] V. Usenko, J. Engel, J. Stueckler and D. Cremers,
Reconstructing Street-Scenes in Real-Time From a Driving Car,

[C18] M. Jaimez, M. Souiai, J. Stueckler, J. Gonzalez-Jimenez and D. Cremers,
Motion Cooperation: Smooth Piece-Wise Rigid Scene Flow from RGB-D Images,

[C19] 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.

[C20] 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.

[C21] 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.

[C22] 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.

[C23] 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,
IEEE International Conference on Computer Vision (ICCV), Santiago, Chile, 2015.

2014
Journal Articles

[J1] B. Goldluecke, M. Aubry, K. Kolev and D. Cremers,
A Super-resolution Framework for High-Accuracy Multiview Reconstruction,

[J2] E. Strekalovskiy, A. Chambolle and D. Cremers,
Convex Relaxation of Vectorial Problems with Coupled Regularization,

[J3] J. Engel, J. Sturm and D. Cremers,
Scale-Aware Navigation of a Low-Cost Quadrocopter with a Monocular Camera,

[J4] E. Rodola, S. R Bulo and D. Cremers,
Robust Region Detection via Consensus Segmentation of Deformable Shapes,

Books
[B1] E. D. Cremers, I. Reid, H. Saito and M.-S. Yang, 
Computer Vision: ACCV 2014, 
Springer 2014.

Book Chapters

Joint Super-Resolution Using Only One Anisotropic Low-Resolution Image per q-Space Coordinate, 
Computational Diffusion MRI, Springer, 2014, Book Chapter, and Oral Presentation at MICCAI 2014 Workshop on Computational Diffusion MRI.

Conference and Workshop Papers

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, 

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, 

[C4] 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.

[C5] E. Rodola, S. R Bulo, T. Windheuser, M. Vestner and D. Cremers, 
Dense Non-Rigid Shape Correspondence Using Random Forests, 

[C6] Y. Kee, M. Souiai, D. Cremers and J. Kim, 
Sequential Convex Relaxation for Mutual-Information-Based Unsupervised Figure-Ground Segmentation, 

[C7] H. Alvarez, L.M. Paz, J. Sturm and D. Cremers, 
Collision Avoidance for Quadrotors with a Monocular Camera, 

[C8] J. Engel, T. Schöps and D. Cremers, 
LSD-SLAM: Large-Scale Direct Monocular SLAM, 
European Conference on Computer Vision (ECCV), September 2014, Oral Presentation.
[C9] T. Schöps, J. Engel and D. Cremers, 
Semi-Dense Visual Odometry for AR on a Smartphone, 

[C10] T. Windheuser, M. Vestner, E. Rodola, R. Triebel and D. Cremers, 
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[J2] C. Nieuwenhuis, E. Toeppe and D. Cremers, 
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[J3] B. Goldluecke, E. Strekalovskiy and D. Cremers, 
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[J4] F. Endres, J. Hess, J. Sturm, D. Cremers and W. Burgard, 
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[J5] Z. Liu, M. Beetz, D. Cremers, J. Gall, W. Li, D. Pangeric, J. Sturm and Y.-W. Tai, 
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[J7] K. Kolev, T. Brox and D. Cremers,
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[C2] M. Aubry, U. Schlickewei and D. Cremers,
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[C3] T. Schoenemann, S. Masnou and D. Cremers,
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[C2] T. Pock, T. Schoenemann, G. Graber, H. Bischof and D. Cremers,  
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