2022

Journal Articles

[J1] L. von Stumberg and D. Cremers, 
DM-VIO: Delayed Marginalization Visual-Inertial Odometry, 

Deep Learning in Attosecond Metrology, 
*Optics Express*, 30(9): 15669-15684, 2022, Editor's Pick.

[J3] T Yenamandra, A Tewari, N Yang, F Bernard, C Theobalt and D Cremers, 
HDSDF: Hybrid Directional and Signed Distance Functions for Fast Inverse Rendering, 
2022.

Conference and Workshop Papers

[C1] J. Veraart and 100 coauthors, 
A data-driven variability assessment of brain diffusion MRI preprocessing pipelines, 

[C2] 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.

[C3] 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.

[C4] 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.

[C5] S Weber, N Demmel, T Chon Chan and D Cremers, 
Power Bundle Adjustment for Large-Scale 3D Reconstruction, 
*submission*, 2022.

2021

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[J1] H. Bauermeister, E. Laude, T. Moellenhoff, M. Moeller and D. Cremers, 
Lifting the convex conjugate in Lagrangian relaxations: A Tractable Approach for Continuous Markov Random Fields, 
[J2] P. Müller, V. Golkov, V. Tomassini and D. Cremers,
Rotation-Equivariant Deep Learning for Diffusion MRI,

[J3] C Tomani, D Cremers and F Buettner,
Parameterized Temperature Scaling for Boosting the Expressive Power in Post-Hoc Uncertainty Calibration,

[J4] J. Chui, S. Klenk and D. Cremers,
Event-Based Feature Tracking in Continuous Time with Sliding Window Optimization,

[J5] M. Mozes, M. Schmitt, V. Golkov, H. Schütze and D. Cremers,
Scene Graph Generation for Better Image Captioning?,

Conference and Workshop Papers

[C1] 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,

[C2] T Frerix, D Kochkov, J Smith, D Cremers, M Brenner and S Hoyer,
Variational Data Assimilation with a Learned Inverse Observation Operator,

[C3] M. Eisenberger, D. Novotny, G. Kerchenbaum, P. Labatut, N. Neverova, D. Cremers and A. Vedaldi,
NeuroMorph: Unsupervised Shape Interpolation and Correspondence in One Go,

[C4] 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.),

[C5] Z. Ye, B. Haefner, Y. Queau, T. Möllenhoff and D. Cremers,
Sublabel-Accurate Multilabeling Meets Product Label Spaces,
German Conference on Pattern Recognition (GCPR), 2021.

[C6] 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,
[C7] T Yenamandra, A Tewari, F Bernard, HP Seidel, M Elgharib, D Cremers and C Theobalt,
_i3DMM: Deep Implicit 3D Morphable Model of Human Heads,

[C8] M Gao, Z Lähner, J Thunberg, D Cremers and F Bernard,
Isometric Multi-Shape Matching,

[C9] M Naeyaert, V Golkov, D Cremers, J Sijbers and M Verhoye,
Faster and better HARDI using FSE and holistic reconstruction,

[C10] P. Müller, V. Golkov, V. Tomassini and D. Cremers,
Rotation-Equivariant Deep Learning for Diffusion MRI (short version),

[C11] 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.

[C12] M. Gladkova, R. Wang, N. Zeller and D. Cremers,
Tight Integration of Feature-based Relocalization in Monocular Direct Visual Odometry,

[C13] 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,

[C14] P. Wenzel, T. Schön, L. Leal-Taixe and D. Cremers,
Vision-Based Mobile Robotics Obstacle Avoidance With Deep Reinforcement Learning,

[C15] N Demmel, C Sommer, D Cremers and V Usenko,
Square Root Bundle Adjustment for Large-Scale Reconstruction,

[C16] C Tomani, S Gruber, ME Erdem, D Cremers and F Buettner,
Post-hoc Uncertainty Calibration for Domain Drift Scenarios,

[C17] 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.


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[C9] C. Sommer, V. Usenko, D. Schubert, N. Demmel and D. Cremers,
Efficient Derivative Computation for Cumulative B-Splines on Lie Groups,

[C10] N. Yang, L. von Stumberg, R. Wang and D. Cremers,
D3VO: Deep Depth, Deep Pose and Deep Uncertainty for Monocular Visual Odometry,

[C11] 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.

[C12] J Liu, I Chiotellis, R Triebel and D Cremers,
Effective Version Space Reduction for Convolutional Neural Networks,
European Conference on Machine Learning and Data Mining (ECML-PKDD), 2020.

[C13] 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.

[C14] C. Sommer, Y. Sun, E. Bylow and D. Cremers,
PrimiTect: Fast Continuous Hough Voting for Primitive Detection,

[C15] L. Koestler, N. Yang, R. Wang and D. Cremers,
Learning Monocular 3D Vehicle Detection without 3D Bounding Box Labels,

[C16] 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,

[C17] B Holzschuh, Z Lähner and D Cremers,
Simulated Annealing for 3D Shape Correspondence,

[C18] M Aygün, Z Lähner and D Cremers,
Unsupervised Dense Shape Correspondence using Heat Kernels,

[C19] N Demmel, M Gao, E Laude, T Wu and D Cremers,
Distributed Photometric Bundle Adjustment,

[C20] L. von Stumberg, P. Wenzel, N. Yang and D. Cremers,
LM-Reloc: Levenberg-Marquardt Based Direct Visual Relocalization,
2019

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C. Vasilev, V. Golkov, M. Meissner, I. Lipp, E. Sgarlata, V. Tomassini, D. K. Jones and D. Cremers,
q-Space Novelty Detection with Variational Autoencoders,
MICCAI 2019 International Workshop on Computational Diffusion MRI, 2019, Oral Presentation.

P. Swazinna, V. Golkov, I. Lipp, E. Sgarlata, V. Tomassini, D. K. Jones and D. Cremers,
Negative-Unlabeled Learning for Diffusion MRI,

D. Schubert, N. Demmel, L. von Stumberg, V. Usenko and D. Cremers,
Rolling-Shutter Modelling for Visual-Inertial Odometry,

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

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

T. Möllenhoff and D. Cremers,
Lifting Vectorial Variational Problems: A Natural Formulation based on Geometric Measure Theory and Discrete Exterior Calculus,
IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2019, Oral Presentation.

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

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

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

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.

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

P. Brechet, T. Wu, T. Möllenhoff and D. Cremers,
Informative GANs via Structured Regularization of Optimal Transport,
2018

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[C1] R. Henschel, L. Leal-Taixe, D. Cremers and B. Rosenhahn,
Fusion of Head and Full-Body Detectors for Multi-Object Tracking,

[C2] C. Sommer and D. Cremers,
Joint Representation of Primitive and Non-primitive Objects for 3D Vision,

[C3] 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.

[C4] 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,

[C6] C Domokos, FR. Schmidt and D Cremers,
MRF Optimization with Separable Convex Prior on Partially Ordered Labels,

[C7] 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.

[C8] T. Möllenhoff, Z. Ye, T. Wu and D. Cremers,
Combinatorial Preconditioners for Proximal Algorithms on Graphs,
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[C9] R Scona, M Jaimez, YR. Petillot, M Fallon and D Cremers,
StaticFusion: Background Reconstruction for Dense RGB-D SLAM in Dynamic Environments,

q-Space Novelty Detection in Short Diffusion MRI Scans of Multiple Sclerosis,


Author: Cremers—coauthors

List of Publications

[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.

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[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,

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,

[J9] E Rodola, M Möller and D Cremers,
Regularized Pointwise Map Recovery from Functional Correspondence,
[J10] 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. Gonzalez-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,  
Author: Cremers—coauthors

List of Publications


[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, 
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[C28] T. Möllenhoff and D. Cremers, 
Sublabel-Accurate Discretization of Nonconvex Free-Discontinuity Problems, 
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[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

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

[J2] J. Duran, M. Möller, C. Sbert and D. Cremers,
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[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,

[J6] O. Litany, E. Rodola, A. M. Bronstein, M. M. Bronstein and D. Cremers,
Non-Rigid Puzzles,

[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,

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[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,


[C15] D. Bender, D. Cremers and W. Koch,
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[C16] I. Chiotellis, R. Triebel, T. Windheuser and D. Cremers,
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[C17] T. Windheuser and D. Cremers,
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[C18] S. Sharifzadeh, I. Chiotellis, R. Triebel and D. Cremers,
Learning to Drive using Inverse Reinforcement Learning and Deep Q-Networks,
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[C19] D. Bender, F. Rouatbi, M. Schikora, D. Cremers and W. Koch,
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[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,
Entrophy Minimization for Groupwise Planar Shape Co-alignment and its Applications,

[J8] M. Möller, M. Benning, C. Schönlieb and D. Cremers,
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[BC1] D. Cremers,
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[BC2] V. Golkov, J. M. Portegies, A. Golkov, R. Duits and D. Cremers,
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[C1] M. Moeller, J. Diebold, G. Gilboa and D. Cremers,
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[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. Strelakovskiy, M. Möller and D. Cremers,
Low Rank Priors for Color Image Regularization,

[C5] M. Jaimez, M. Souiai, J. Gonzalez-Jimenez and D. Cremers,
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[C7] R. Mecca, E. Rodola and D. Cremers,  
**Analysis of Surface Parametrizations for Modern Photometric Stereo Modeling**,  
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[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**,  
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**Active Online Confidence Boosting for Efficient Object Classification**,  

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

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D. Cremers and T. Brox,  
**FlowNet: Learning Optical Flow with Convolutional Networks**,  
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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,  
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**Large-Scale Direct SLAM with Stereo Cameras**,  

[C14] D. Caruso, J. Engel and D. Cremers,  
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[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,
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[C20] C. Kerl, J. Stueckler and D. Cremers,
Dense Continuous-Time Tracking and Mapping with Rolling Shutter RGB-D Cameras,
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[C21] M. Souiai, M. R. Oswald, Y. Kee, J. Kim, M. Pollefeys and D. Cremers,
Entropy Minimization for Convex Relaxation Approaches,
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[C22] F. Stark, C. Hazirbas, R. Triebel and D. Cremers,
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A Super-resolution Framework for High-Accuracy Multiview Reconstruction,

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Springer 2014.

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Joint Super-Resolution Using Only One Anisotropic Low-Resolution Image per q-Space Coordinate,  
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[C5] E. Rodola, S. R Bulo, T. Windheuser, M. Vestner and D. Cremers,  
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[C6] Y. Kee, M. Souiai, D. Cremers and J. Kim,  
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[C7] H. Alvarez, L.M. Paz, J. Sturm and D. Cremers,
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[C8] J. Engel, T. Schöps and D. Cremers,
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[C9] T. Schöps, J. Engel and D. Cremers,
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[C10] T. Windheuser, M. Vestner, E. Rodola, R. Triebel and D. Cremers,
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[C11] M. Strobel, J. Diebold and D. Cremers,
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[C12] R. Maier, J. Sturm and D. Cremers,
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[C14] M. R. Oswald and D. Cremers,
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[C15] C. Nieuwenhuis, S. Hawe, M. Kleinsteuber and D. Cremers,
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[C16] M. R. Oswald, J. Stühmer and D. Cremers,
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[C17] E. Strekalovskiy and D. Cremers,
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[C18] A. Kanezaki, E. Rodola, D. Cremers and T. Harada,
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*Sixth Workshop on Non-Rigid Shape Analysis and Deformable Image Alignment (NORDIA)*, 2014.

[C20] O. Dunkley, J. Engel, J. Sturm and D. Cremers,
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[C21] R. Triebel, J. Stühmer, M. Souiai and D. Cremers,
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[C22] S. Debnath, S. S. Baishya, R. Triebel, V. Dutt and D. Cremers,
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[C23] A. Kanezaki, E. Rodola, D. Cremers and T. Harada,
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[C24] D. Bender, M. Schikora, J. Sturm and D. Cremers,
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[C25] C. Kerl, M. Souiai, J. Sturm and D. Cremers,
**Towards Illumination-invariant 3D Reconstruction using ToF RGB-D Cameras,**

[C26] F. R. Schmidt, T. Windheuser, U. Schlickewei and D. Cremers,
**Dense Elastic 3D Shape Matching,**

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[J1] C. Nieuwenhuis and D. Cremers,
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[J2] C. Nieuwenhuis, E. Toeppe and D. Cremers,
**A Survey and Comparison of Discrete and Continuous Multi-label Optimization Approaches for the Potts Model,**

[J3] B. Goldhauke, 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. Pangerlic, J. Sturm and Y.-W. Tai,  
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[C2] J. Bergbauer, C. Nieuwenhuis, M. Souiai and D. Cremers,  
Proximity Priors for Variational Semantic Segmentation and Recognition,  
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[C3] V. Golkov, T. Sprenger, A. Menini, M.I. Menzel, D. Cremers and J.I. Sperl,  
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[C13] F. Stangl, M. Souiai and D. Cremers, 
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[C14] T. Möllenhoff, C. Nieuwenhuis, E. Toeppe and D. Cremers, 
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[C15] C. Kerl, J. Sturm and D. Cremers, 
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[C16] T. Naseer, J. Sturm and D. Cremers, 
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[C26] J. Stühmer, P. Schröder and D. Cremers,  
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[C27] G. Kuschk and D. Cremers,  
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[C28] M. R. Oswald and D. Cremers,  
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Interactive Person Following and Gesture Recognition with a Flying Robot,
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[R1] M. Souiai, E. Strekalovskiy, C. Nieuwenhuis and D. Cremers,
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[J1] A. Chambolle, D. Cremers and T. Pock,
A Convex Approach to Minimal Partitions,

[J2] T. Schoenemann and D. Cremers,
A Coding Cost Framework for Super-resolution Motion Layer Decomposition,

[J3] T. Schoenemann, F. Kahl, S. Masnou and D. Cremers,
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Optimal Solutions for Semantic Image Decomposition,

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[J6] B. Goldluecke, E. Strekalovskiy and D. Cremers,
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[C1] F. Endres, J. Hess, N. Engelhard, J. Sturm, D. Cremers and W. Burgard,  
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[C2] T. Ruehr, J. Sturm, D. Pangercic, M. Beetz and D. Cremers,  
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[C3] M. Schikora, A. Gning, L. Mihaylova, D. Cremers, W. Koch and R. Streit,  
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[C15] N. Ufer, M. Souiai and D. Cremers,
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[C16] G. M. Garcia, D. A. Klein, J. Stueckler, S. Frintrop and A. B. Cremers,
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[J2] D. Cremers and K. Kolev,
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[J4] T. Schoenemann, S. Masnou and D. Cremers,
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[J5] A. Sellent, M. Eisemann, B. Goldluecke, D. Cremers and M. Magnor,
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A Variational Approach to Vesicle Membrane Reconstruction from Fluorescence Imaging,

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[C4] T. Pock, A. Chambolle, H. Bischof and D. Cremers, 
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[C6] B. Goldluecke and D. Cremers, 
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2008

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[J1] T. Brox, O. Kleinschmidt and D. Cremers,
Efficient Nonlocal Means for Denoising of Textural Patterns,

[J2] D. Cremers,
Nonlinear Dynamical Shape Priors for Level Set Segmentation,

[J3] H. Jin, D. Cremers, D. Wang, A. Yezzi, E. Prados and S. Soatto,
3-D Reconstruction of Shaded Objects from Multiple Images Under Unknown Illumination,
Conference and Workshop Papers


Author: Cremers—coauthors

List of Publications

[C12] T. Schoenemann and D. Cremers,
High Resolution Motion Layer Decomposition using Dual-space Graph Cuts,

[C13] B. Rosenhahn, T. Brox, D. Cremers and H.-P. Seidel,
Modeling and Tracking Line-Constrained Mechanical Systems,

[C14] O. Kleinschmidt, T. Brox and D. Cremers,
Nonlocal texture filtering with efficient tree structures and invariant
patch similarity measures,
*Int. Workshop on Local and Nonlocal Approximation*, Lausanne, Switzerland, aug 2008.

Technical Reports

[R1] A. Chambolle, D. Cremers and T. Pock,
A Convex Approach for Computing Minimal Partitions,

2007

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[J1] D. Cremers,
Computer Lernen Sehen,

[J2] D. Cremers, M. Rousson and R. Deriche,
A review of statistical approaches to level set segmentation: integrating color, texture, motion and shape,

Books

[B1] E. S.-C. Zhu, A. Yuille, D. Cremers and Y. Wang,
Energy Minimization Methods for Computer Vision and Pattern Recognition (EMMCVPR),

Book Chapters

[BC1] T. Brox, B. Rosenhahn and D. Cremers,
Contours, optic flow, and prior knowledge: cues for capturing 3D human motion in videos,

[BC2] D. Cremers and M. Rousson,
Efficient kernel density estimation of shape and intensity priors for level set segmentation,
Conference and Workshop Papers

[C1] K. Kolev, M. Klodt, T. Brox and D. Cremers,
Propagated Photoconsistency and Convexity in Variational Multiview 3D Reconstruction,

[C2] K. Kolev, M. Klodt, T. Brox, S. Esedoglu and D. Cremers,
Continuous Global Optimization in Multiview 3D Reconstruction,

[C3] T. Brox, B. Rosenhahn, D. Cremers and H.-P. Seidel,
Nonparametric density estimation with adaptive anisotropic kernels for human motion tracking,

[C4] T. Schoenemann and D. Cremers,
Globally Optimal Image Segmentation with an Elastic Shape Prior,

[C5] T. Schoenemann and D. Cremers,
Introducing Curvature into Globally Optimal Image Segmentation: Minimum Ratio Cycles on Product Graphs,

[C6] F. R. Schmidt, D Farin and D. Cremers,
Fast Matching of Planar Shapes in Sub-cubic Runtime,

[C7] F. R. Schmidt, E. Toeppe, D. Cremers and Y. Boykov,
Intrinsic Mean for Semimetrical Shape Retrieval via Graph Cuts,

[C8] A. Wedel, T. Schoenemann, T. Brox and D. Cremers,
WarpCut - Fast obstacle segmentation in monocular video,

[C9] C. Schmaltz, B. Rosenhahn, T. Brox, D. Cremers, J. Weickert, L. Wietzke and G. Sommer,
Occlusion Modeling by Tracking Multiple Objects,

[C10] B. Rosenhahn, T. Brox, D. Cremers and H.-P. Seidel,
Online smoothing for markerless motion capture,

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Efficient Shape Matching via Graph Cuts,
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[C12] D. Cremers,
Nonlinear Dynamical Shape Priors for Level Set Segmentation,

[C13] T. Brox and D. Cremers,
On the Statistical Interpretation of the Piecewise Smooth Mumford-Shah Functional,

[C14] T. Brox and D. Cremers,
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A probabilistic level set formulation for interactive organ segmentation,

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Iterated and Efficient Nonlocal Means for Denoising of Textural Patterns,

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[J1] D. Cremers,
Dynamical statistical shape priors for level set based tracking,

[J2] D. Cremers, S. J. Osher and S. Soatto,
Kernel density estimation and intrinsic alignment for shape priors in level set segmentation,

[J3] D. Cremers, N. Sochen and C. Schnörr,
A multiphase dynamic labeling model for variational recognition-driven image segmentation,

[J4] S. Manay, D. Cremers, B.-W. Hong, A. Yezzi and S. Soatto,
Integral invariants for shape matching,

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[BC1] D. Cremers and T. Kohlberger,
Probabilistic kernel PCA and its application to statistical shape modeling and inference,

[BC2] S. Manay, D. Cremers, B. W. Hong, A. Yezzi and S. Soatto,
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Statistical analysis of shapes (modeling and simulation in science, engineering and technology), Birkhauser, 137-167, May 2006.

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[C1] F. R. Schmidt, M. Clausen and D. Cremers,
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[C4] K. Kolev, T. Brox and D. Cremers,
Robust variational segmentation of 3D objects from multiple views,

[C5] A. Wedel, U. Franke, J. Klappstein, T. Brox and D. Cremers,
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[C6] Y. Boykov, V. Kolmogorov, D. Cremers and A. Delong,
An integral solution to surface evolution PDEs via Geo-Cuts,
A. Leonardis, H. Bischof and A. Pinz(Eds.), European Conference on Computer Vision (ECCV), Graz, Austria, Springer, LNCS, Vol. 3953, 409-422, may 2006.

[C7] B. Rosenhahn, T. Brox, D. Cremers and H.-P. Seidel,
A comparison of shape matching methods for contour based pose estimation,

[C8] T. Brox, B. Rosenhahn, D. Cremers and H.-P. Seidel,
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[C9] D. Cremers and L. Grady,
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[C10] D. Cremers, C. Guetter and C. Xu,
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[C11] O. Fluck, S. Aharon, D. Cremers and M. Rousson,
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Variational segmentation with shape priors,

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[C1] D. Cremers and G. Funka-Lea,
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Multiphase dynamic labeling for variational recognition-driven image segmentation,

[C4] H. Jin, D. Cremers, A. Yezzi and S. Soatto,
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Shape Statistics in Kernel Space for Variational Image Segmentation,
*Pattern Recognition*, 36(9): 1929-1943, 2003, **Awarded Best Paper of the Year 2003**.

[J2] D. Cremers and C. Schnörr,
Statistical shape knowledge in variational motion segmentation,

[J3] J. Keuchel, C. Schnörr, C. Schellewald and D. Cremers,
Binary partitioning, perceptual grouping, and restoration with semidefinite programming,

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[C1] D. Cremers,
A variational framework for image segmentation combining motion estimation and shape regularization,

[C2] D. Cremers,
A multiphase level set framework for variational motion segmentation,
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A pseudo-distance for shape priors in level set segmentation,

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Towards Recognition-based Variational Segmentation Using Shape Priors and Dynamic Labeling,

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[J2] D. Cremers, F. Tischhäuser, J. Weickert and C. Schnörr,
Diffusion Snakes: Introducing statistical shape knowledge into the Mumford–Shah functional,

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[C1] J. Keuchel, C. Schnörr, C. Schellewald and D. Cremers,
Unsupervised Image Partitioning with Semidefinite Programming,

[C2] D. Cremers, T. Kohlberger and C. Schnörr,
Nonlinear shape statistics in Mumford–Shah based segmentation,
Author: Cremers—coauthors  List of Publications

[C3] D. Cremers and C. Schnörr,
Motion Competition: variational integration of motion segmentation and shape regularization,

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Diffusion Snakes using statistical shape knowledge,

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