2022
Journal Articles

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

**Deep Learning in Attosecond Metrology**, 
*Optics Express*, 2022.

[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] 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.

2021
Journal Articles

[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**, 
Author: Cremers—coauthors

List of Publications

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

[J6] C Sommer, L Sang, D Schubert and D Cremers, 
Gradient-SDF: A Semi-Implicit Surface Representation for 3D Reconstruction, 

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, 

[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.

[C18] 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, 

[C19] S Klenk, J Chui, N Demmel and D Cremers, 
TUM-VIE: The TUM Stereo Visual-Inertial Event Dataset, 
Author: Cremers—coauthors List of Publications

[C20] 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.

[C21] S Weber, N Demmel and D Cremers,
Multidirectional Conjugate Gradients for Scalable Bundle Adjustment,
German Conference on Pattern Recognition (GCPR), 2021, Oral Presentation.

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,

[J3] V. Golkov, A. Becker, D. T. Plop, D. 38;268uturilo, N. Davoudi, J. Mendenhall, R. Moretti, J. Meiler and D. Cremers,
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,

Accelerating in vivo fast spin echo high angular resolution diffusion imaging with an isotropic resolution in mice through compressed sensing,

[J8] G Fabbro, V Golkov, T Kemp and D Cremers,
Speech Synthesis and Control Using Differentiable DSP,
[J9] I Chiotellis and D Cremers,
Neural Online Graph Exploration,

Conference and Workshop Papers
[C1] 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,
[C2] 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.
[C3] T Frerix, M Niesner and D Cremers,
Homogeneous Linear Inequality Constraints for Neural Network Activations,
[C4] R. Wang, N. Yang, J. Stueckler and D. Cremers,
DirectShape: Photometric Alignment of Shape Priors for Visual Vehicle Pose and Shape Estimation,
[C5] 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.
[C6] M. Eisenberger and D. Cremers,
Hamiltonian Dynamics for Real-World Shape Interpolation,
European Conference on Computer Vision (ECCV), 2020, Spotlight Presentation.
[C7] M. Eisenberger, A. Toker, L. Leal-Taixe and D. Cremers,
Deep Shells: Unsupervised Shape Correspondence with Optimal Transport,
[C8] S. Weiss, R. Maier, D. Cremers, R. Westermann and N. Thürey,
Correspondence-Free Material Reconstruction using Sparse Surface Constraints,
[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,
List of Publications

[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

Journal Articles

Video Object Segmentation without Temporal Information,

[J2] H Tjaden, U Schwancke, E Schömer and D Cremers,
A Region-based Gauss-Newton Approach to Real-Time Monocular Multiple Object Tracking,
Author: Cremers—coauthors

List of Publications

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

[J4] F. Pasa, V. Golkov, F. Pfeiffer, D. Cremers and D. Pfeiffer,
Efficient Deep Network Architectures for Fast Chest X-Ray Tuberculosis Screening and Visualization,

[J5] J. Schuchardt, V. Golkov and D. Cremers,
Learning to Evolve,

[J6] L. Della 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

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

[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.

[C4] A. 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.

[C5] P. Swazinna, V. Golkov, I. Lipp, E. Sgarlata, V. Tomassini, D. K. Jones and D. Cremers,
Negative-Unlabeled Learning for Diffusion MRI,

[C6] 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**

**Journal Articles**

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

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


Conference and Workshop Papers


[C12] B. T. Do, V. Golkov, G. E. Gürel and D. Cremers,
Precursor microRNA Identification Using Deep Convolutional Neural Networks,

[C13] P. Haeusser, J. Plapp, V. Golkov, E. Aljalbout and D. Cremers,
Associative Deep Clustering - Training a Classification Network with no Labels,
*Proc. of the German Conference on Pattern Recognition (GCPR)*, October 2018.

[C14] T. Frerix, T. Möllenhoff, M. Moeller and D. Cremers,
Proximal Backpropagation,

[C15] L. von Stumberg, V. Usenko and D. Cremers,
Direct Sparse Visual-Inertial Odometry using Dynamic Marginalization,

[C16] D. Schubert, T. Goll, N. Demmel, V. Usenko, J. Stueckler and D. Cremers,
The TUM VI Benchmark for Evaluating Visual-Inertial Odometry,

[C17] X. Gao, R. Wang, N. Demmel and D. Cremers,
LDSO: Direct Sparse Odometry with Loop Closure,

[C18] Z. Lähner, D. Cremers and T. Tung,
DeepWrinkles: Accurate and Realistic Clothing Modeling,

[C19] N. Yang, R. Wang, J. Stueckler and D. Cremers,
Deep Virtual Stereo Odometry: Leveraging Deep Depth Prediction for Monocular Direct Sparse Odometry,

[C20] D. Schubert, N. Demmel, V. Usenko, J. Stueckler and D. Cremers,
Direct Sparse Odometry With Rolling Shutter,

[C21] V. Usenko, N. Demmel and D. Cremers,
The Double Sphere Camera Model,

[C22] I. Chiotellis, F. Zimmermann, D. Cremers and R. Triebel,
Incremental Semi-Supervised Learning from Streams for Object Classification,

[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.
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

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

2. D. Cremers, L. Leal-Taixe and R. Vidal,
*Deep Learning for Computer Vision (Dagstuhl Seminar 17391)*,

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

4. D. Cremers,
*Computer Vision für 3-D-Rekonstruktion - Vom Nischenthema zum Mainstream*,

5. E. Rodola, L. Cosmo, M. M. Bronstein, A. Torsello and D. Cremers,
*Partial Functional Correspondence*,

6. 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*,

9. E. Rodola, M. Möller and D. Cremers,
*Regularized Pointwise Map Recovery from Functional Correspondence*,

10. J. Kukacka, V. Golkov and D. Cremers,
*Regularization for Deep Learning: A Taxonomy*,
List of Publications

[C1] M. Benning, M. Möller, R. Z. Nossek, M. Burger, D. Cremers and G. Gilboa, 
Nonlinear Spectral Image Fusion, 
F. Lauze, Y. Dong and A. Dahl (Eds.), Scale Space and Variational Methods in Computer Vision - 6th International Conference, SSVM 2017, Kolding, Denmark, June 4-8, 2017, 

[C2] D. Bender, W. Koch and D. Cremers, 
Map-based drone homing using shortcuts, 
2017 IEEE International Conference on Multisensor Fusion and Integration for Intelligent Systems, MFI 2017, Daegu, Korea (South), November 16-18, 2017, 

[C3] 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, 

[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, 
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, 
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,

[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,

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

[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 demosaicage,
GRETSI, Juan-les-Pins, USA, 2017.


2016

Journal Articles

[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,

[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,

[C7] 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.

SHREC’16: 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,

[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, 
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[C19] D. Bender, F. Rouatbi, M. Schikora, D. Cremers and W. Koch, 
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[C10] C. Nieuwenhuis, E. Toeppe and D. Cremers,
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[C15] S. Madhogaria, M. Schikora, W. Koch and D. Cremers,
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[C17] M. Schikora, W. Koch and D. Cremers,  
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[C18] E. Toeppe, M. R. Oswald, D. Cremers and C. Rother,  
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[C19] M. R. Oswald, E. Toeppe, C. Nieuwenhuis and D. Cremers,  
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[C3] M. Schikora, D. Bender, W. Koch and D. Cremers,  
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[C2] F. R. Schmidt and D. Cremers, 
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[J3] D. Cremers, N. Sochen and C. Schm"{o}rr,
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