2023
Conference and Workshop Papers
[C1] F Hofherr, L Koestler, F Bernard and D Cremers,
Neural Implicit Representations for Physical Parameter Inference from a Single Video,
[C2] L Sang, B Haefner, X Zuo and D Cremers,
High-Quality RGB-D Reconstruction via Multi-View Uncalibrated Photometric Stereo and Gradient-SDF,
IEEE Winter Conference on Applications of Computer Vision (WACV), Hawaii, USA, January 2023.

2022
Journal Articles
[J1] Z. Ye, B. Haefner, Y. Queau, T. Möllenhoff and D. Cremers,
A Cutting-Plane Method for Sublabel-Accurate Relaxation of Problems with Product Label Spaces,
International Journal of Computer Vision (IJCV), 2022.
[J2] C Tomani and D Cremers,
Challenger: Training with Attribution Maps,
[J3] 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.
[J5] 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] M. Eisenberger, A. Toker, L. Leal-Taixe, F. Bernard and D. Cremers,
A Unified Framework for Implicit Sinkhorn Differentiation,
IEEE International Conference on Computer Vision and Pattern Recognition (CVPR), 2022.
[C2] C Tomani, D Cremers and F Buettner,
Parameterized Temperature Scaling for Boosting the Expressive Power in Post-Hoc Uncertainty Calibration,
European Conference on Computer Vision (ECCV), 2022.
[C3] J. Veraart and 100 coauthors,
A data-driven variability assessment of brain diffusion MRI preprocessing pipelines,

[C4] 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.*

[C5] 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.*

[C6] 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.*

[C7] S Weber, N Demmel, T Chon Chan and D Cremers,
Power Bundle Adjustment for Large-Scale 3D Reconstruction,
*submission, 2022.*

[C8] F Müller, Q Khan and D Cremers,
Lateral Ego-Vehicle Control Without Supervision Using Point Clouds,

[C9] L Hang, Q Khan, V Tresp and D Cremers,
Biologically Inspired Neural Path Finding,
*Brain Informatics (Accepted), Springer, 2022.*

[C10] 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.*

[C11] 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.*

[C12] 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,
*International Conference on Intelligent Robots and Systems (IROS), 2022.*

[C13] HHH Hsu, Y Shen, C Tomani and D Cremers,
What Makes Graph Neural Networks Miscalibrated?,
*NeurIPS, 2022.*

[C14] Y Shen and D Cremers,
Deep Combinatorial Aggregation,
*NeurIPS, 2022.*
[C15] HHH Hsu, Y Shen and D Cremers,
A Graph Is More Than Its Nodes: Towards Structured Uncertainty-Aware
Learning on Graphs,

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. M"uller, V. Golkov, V. Tomassini and D. Cremers,
Rotation-Equivariant Deep Learning for Diffusion MRI,

[J3] J. Chui, S. Klenk and D. Cremers,
Event-Based Feature Tracking in Continuous Time with Sliding Window Op-
timization,

[J4] M. Mozes, M. Schmitt, V. Golkov, H. Sch"utze 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 Image-
ry,

[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,
IEEE International Conference on Computer Vision and Pattern Recognition (CVPR),
2021.

[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.),
Scale Space and Variational Methods in Computer Vision, Cham, Springer International

[C5] Z. Ye, B. Haefner, Y. Queau, T. Möllenhoff and D. Cremers,
Sublabel-Accurate Multilabeling Meets Product Label Spaces,
DAGM 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,
International Society for Magnetic Resonance in Medicine (ISMRM) Annual Meeting,
2021.

[C10] P. Müller, V. Golkov, V. Tomassini and D. Cremers,
Rotation-Equivariant Deep Learning for Diffusion MRI (short version),
International Society for Magnetic Resonance in Medicine (ISMRM) Annual Meeting,
2021.

[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,
Proceedings of the IEEE International Conference on Robotics and Automation (ICRA),
2021.

[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,

[C18] MW Wudena, 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,

[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.

[C22] Y Wang, Y Shen and D Cremers,
Explicit pairwise factorized graph neural network for semi-supervised node classification,
*UAI*, 2021.

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, 

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. Thuerey, 
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, 

[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, 

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, 
*IEEE/CVF 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, 

[C7] M. Eisenberger, Z. Lähner and D. Cremers, 
Divergence-Free Shape Correspondence by Deformation, 

[C8] E. Laude, T. Wu and D. Cremers, 
Optimization of Inf-Convolution Regularized Nonconvex Composite Problems, 
*International Conference on Artificial Intelligence and Statistics (AISTATS)*, 2019.

[C9] 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.

[C10] T. Möllenhoff and D. Cremers, 
Flat Metric Minimization with Applications in Generative Modeling, 

[C11] Q. Khan, P. Wenzel, D. Cremers and L. Leal-Taixé, 
Towards Generalizing Sensorimotor Control Across Weather Conditions, 

[C12] M. Moeller, T. Möllenhoff and D. Cremers, 
Controlling Neural Networks via Energy Dissipation, 
*International Conference on Computer Vision (ICCV)*, Seoul, South Korea, 10 2019.

[C13] 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.
Cremers—coauthors

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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,
List of Publications

[10] 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

[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,
2018 International Conference on 3D Vision, 3DV 2018, Verona, Italy, September 5-8, 2018,

[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,
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2018,
Spotlight Presentation.

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,
Vittorio Ferrari, Martial Hebert, Cristian Sminchisescu and Yair Weiss(Eds.),

[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,
International Conference on Artificial Intelligence and Statistics (AISTATS), 2018.

[C9] R Scona, M Jaimez, YR. Petillot, M Fallon and D Cremers,
StaticFusion: Background Reconstruction for Dense RGB-D SLAM in Dynamic Environments,


2017 Journal Articles


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, 
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*,

[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,

[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, 

[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, 
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[C27] R. Wang, M. Schwörer and D. Cremers, 
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[C28] T. Möllenhoff and D. Cremers, 
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[C29] Y. Queau, J. Melou, F. Castan, D. Cremers and J.-D. Durou, 
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[C30] F. Bernard, F. R. Schmidt, J. Thunberg and D. Cremers, 
A Combinatorial Solution to Non-Rigid 3D Shape-to-Image Matching, 

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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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