Journal Articles

[J1] V. Usenko, N. Demmel, D. Schubert, J. Stueckler and D. Cremers,
Visual-Inertial Mapping with Non-Linear Factor Recovery,

[J2] L. von Stumberg, P. Wenzel, Q. Khan and D. Cremers,
GN-Net: The Gauss-Newton Loss for Multi-Weather Relocalization,

[J3] T. Frerix, M. Niesner and D. Cremers,
Homogeneous Linear Inequality Constraints for Neural Network Activations, preprint, 2019.

[J4] J. Schuchardt, V. Golkov and D. Cremers,
Learning to Evolve,

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

[J6] Brahimi, M., Queau, Y., Haefner, B., Cremers and D.,
On well-posedness of uncalibrated photometric stereo under general lighting,

[J7] L. Della Libera, V. Golkov, Y. Zhu, A. Mielke and D. Cremers,
Deep Learning for 2D and 3D Rotatable Data: An Overview of Methods,

[J8] Laude, E., Ochs, P., Cremers and D.,
Bregman Proximal Mappings and Bregman-Moreau Envelopes under Relative Prox-Regularity,
2019.

[J9] Mahesh Chandra Mukkamala, Felix Westerkamp, Emanuel Laude, Daniel Cremers and Peter Ochs,
Bregman Proximal Framework for Deep Linear Neural Networks,

[J10] J. Engel, V. Koltun and D. Cremers,
Direct Sparse Odometry,
March 2018.

[J11] N. Yang, R. Wang, X. Gao and D. Cremers,
Challenges in Monocular Visual Odometry: Photometric Calibration, Motion Bias and Rolling Shutter Effect,
LED-based Photometric Stereo: Modeling, Calibration and Numerical Solution,

[J13] Melou, J., Queau, Y., Durou, J.-D., Castan, F., Cremers and D.,
Variational Reflectance Estimation from Multi-view Images,

[J14] P. Bergmann, R. Wang and D. Cremers,
Online Photometric Calibration of Auto Exposure Video for Realtime Visual Odometry and SLAM,

[J15] E. Aljalbout, V. Golkov, Y. Siddiqui, M. Strobel and D. Cremers,
Clustering with Deep Learning: Taxonomy and New Methods,

[J16] L. Ma, J. Stueckler, T. Wu and D. Cremers,
Detailed Dense Inference with Convolutional Neural Networks via Discrete Wavelet Transform,
Aug 2018.

[J17] Tjaden, Henning, Schwanecke, Ulrich, Schömer, Elmar, Cremers and Daniel,
A Region-based Gauss-Newton Approach to Real-Time Monocular Multiple Object Tracking,

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

Tau Like Proteins Reduce Torque Generation in Microtubule Bundles,

[J20] J. Kukacka, V. Golkov and D. Cremers,
Regularization for Deep Learning: A Taxonomy,

[J21] E. Rodola, L. Cosmo, M. M. Bronstein, A. Torsello and D. Cremers,
Partial Functional Correspondence,

[J22] L. Cosmo, E. Rodola, A. Albarelli, F. Memoli and D. Cremers,
Consistent Partial Matching of Shape Collections via Sparse Modeling,

[J23] D. Boscaini, J. Masci, E. Rodola, M. M. Bronstein and D. Cremers,
Anisotropic Diffusion Descriptors,
[J24] 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,  
35: 2016, Special Issue on Deep Learning.

[J25] O. Litany, E. Rodola, A. M. Bronstein, M. M. Bronstein and D. Cremers,  
Non-Rigid Puzzles,  

[J26] Vestner, M., Litman, R., Bronstein, A., Rodola, E., Cremers and D.,  
Bayesian Inference of Bijective Non-Rigid Shape Correspondence,  

[J27] J. Diebold, C. Nieuwenhuis and D. Cremers,  
Midrange Geometric Interactions for Semantic Segmentation,  
2015.

[J28] J. Diebold, S. Tari and D. Cremers,  
The Role of Diffusion in Figure Hunt Games,  

[J29] S. Madhogaria, P. M. Baggenstoss, M. Schikora, W. Koch and D. Cremers,  
Car detection by fusion of HOG and causal MRF,  

[J30] M. Klodt, K. Herzog, R. Töpfer and D. Cremers,  
Field phenotyping of grapevine growth using dense stereo reconstruction,  

[J31] E. Rodola, A. Albarelli, D. Cremers and A. Torsello,  
A Simple and Effective Relevance-based Point Sampling for 3D Shapes,  

[J32] R. Mecca, E. Rodola and D. Cremers,  
Realistic Photometric Stereo Using Partial Differential Irradiance Equation Ratios,  

[J33] T. Möllenhoff, E. Strekalovskiy, M. Möller and D. Cremers,  
The Primal-Dual Hybrid Gradient Method for Semiconvex Splittings,  

[J34] B. Goldluecke, M. Aubry, K. Kolev and D. Cremers,  
A Super-resolution Framework for High-Accuracy Multiview Reconstruction,  

[J35] E. Strekalovskiy, A. Chambolle and D. Cremers,  
Convex Relaxation of Vectorial Problems with Coupled Regularization,  

[J36] J. Engel, J. Sturm and D. Cremers,  
Scale-Aware Navigation of a Low-Cost Quadrocopter with a Monocular Camera,  
E. Rodola, S. Rota Bulo and D. Cremers, 
Robust Region Detection via Consensus Segmentation of Deformable Shapes, 

C. Nieuwenhuis and D. Cremers, 
Spatially Varying Color Distributions for Interactive Multi-Label Segmentation, 

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

B. Goldluecke, E. Strekalovskiy and D. Cremers, 
Tight Convex Relaxations for Vector-Valued Labeling, 

F. Endres, J. Hess, J. Sturm, D. Cremers and W. Burgard, 
3D Mapping with an RGB-D Camera, 

Liu, Z., Beetz, M., Cremers, D., Gall, J., Li, W., Pangercic, D., Sturm, J., Tai and Y.-W., 
Introduction to the special issue on visual understanding and applications with RGB-D cameras, 

A. Chambolle, D. Cremers and T. Pock, 
A Convex Approach to Minimal Partitions, 

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

T. Schoenemann, F. Kahl, S. Masnou and D. Cremers, 
A linear framework for region-based image segmentation and inpainting involving curvature penalization, 

D. Cremers, 
Optimal Solutions for Semantic Image Decomposition, 

S. Chen, D. Cremers and R. J. Radke, 
Image segmentation with one shape prior - A template-based formulation, 

B. Goldluecke, E. Strekalovskiy and D. Cremers, 
The Natural Total Variation Which Arises from Geometric Measure Theory, 
[J49] K. Kolev, T. Brox and D. Cremers,
Fast Joint Estimation of Silhouettes and Dense 3D Geometry from Multiple
Images,

A. Schikora,
An image classification approach to analyze the suppression of plant immunity
by the human pathogen Salmonella Typhimurium,

[J51] D. Cremers and E. Strekalovskiy,
Total Cyclic Variation and Generalizations,

[J52] T. Windheuser, U. Schlickewei, F. R. Schmidt and D. Cremers,
Large-Scale Integer Linear Programming for Orientation-Preserving 3D Shape
Matching,
*Computer Graphics Forum (Proceedings Symposium Geometry Processing)*, 30(5): 1471-
1480, 2011.

[J53] D. Cremers and K. Kolev,
Multiview Stereo and Silhouette Consistency via Convex Functionals over
Convex Domains,

[J54] A. Wedel, T. Brox, T. Vaudrey, C. Rabe, U. Franke and D. Cremers,
Stereoscopic Scene Flow Computation for 3D Motion Understanding,

[J55] T. Schoenemann, S. Masnou and D. Cremers,
The Elastic Ratio: Introducing Curvature into Ratio-Based Globally Optimal
Image Segmentation,
20(9): 2565-2581, 2011.

[J56] A. Sellent, M. Eisemann, B. Goldluecke, D. Cremers and M. Magnor,
Motion Field Estimation from Alternate Exposure Images,

Merkel and D. Cremers,
A Variational Approach to Vesicle Membrane Reconstruction from Fluores-
cence Imaging,

[J58] T. Pock, D. Cremers, H. Bischof and A. Chambolle,
Global Solutions of Variational Models with Convex Regularization,

[J59] T. Schoenemann and D. Cremers,
A Combinatorial Solution for Model-based Image Segmentation and Real-time
Tracking,
[J60] T. Brox and D. Cremers,
On local region models and a statistical interpretation of the piecewise smooth Mumford-Shah functional,

[J61] T. Brox, B. Rosenhahn, J. Gall and D. Cremers,
Combined region- and motion-based 3D tracking of rigid and articulated objects,

[J62] K. Kolev, M. Klodt, T. Brox and D. Cremers,
Continuous Global Optimization in Multiview 3D Reconstruction,

[J63] A. Wedel, C. Rabe, H. Badino, H. Loose, U. Franke and D. Cremers,
B-Spline Modeling of Road Surfaces with an Application to Free Space Estimation,

[J64] T. Brox, O. Kleinschmidt and D. Cremers,
Efficient Nonlocal Means for Denoising of Textural Patterns,

[J65] D. Cremers,
Nonlinear Dynamical Shape Priors for Level Set Segmentation,

[J66] 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,

[J67] D. Cremers,
Computer Lernen Sehen,

[J68] D. Cremers, M. Rousson and R. Deriche,
A review of statistical approaches to level set segmentation: integrating color, texture, motion and shape,

[J69] D. Cremers,
Dynamical statistical shape priors for level set based tracking,

[J70] D. Cremers, S. J. Osher and S. Soatto,
Kernel density estimation and intrinsic alignment for shape priors in level set segmentation,

[J71] D. Cremers, N. Sochen and C. Schnörr,
A multiphase dynamic labeling model for variational recognition-driven image segmentation,
[J72] S. Manay, D. Cremers, B.-W. Hong, A. Yezzi and S. Soatto,
Integral invariants for shape matching,

[J73] D. Cremers and S. Soatto,
Motion Competition: A variational framework for piecewise parametric motion segmentation,

[J74] D. Cremers, T. Kohlberger and C. Schnörr,
Shape Statistics in Kernel Space for Variational Image Segmentation,

[J75] D. Cremers and C. Schnörr,
Statistical shape knowledge in variational motion segmentation,

[J76] J. Keuchel, C. Schnörr, C. Schellewald and D. Cremers,
Binary partitioning, perceptual grouping, and restoration with semidefinite programming,

[J77] D. Cremers and A. V. M. Herz,
Travelling waves of exitation in neural field models: Equivalence of rate descriptions and integrate-and-fire dynamics,

[J78] D. Cremers, F. Tischhäuser, J. Weickert and C. Schnörr,
Diffusion Snakes: Introducing statistical shape knowledge into the Mumford–Shah functional,

[J79] D. Cremers and A. Mielke,
Flow equations for the Héon-Heiles Hamiltonian,