Journal Publications

[J1] Haefner, B., Peng, S., Verma, A., Queau, Y., Cremers and D.,
Photometric Depth Super-Resolution,
Submitted to IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)

[J2] K. Kolev, T. Brox and D. Cremers,
Fast Joint Estimation of Silhouettes and Dense 3D Geometry from Multiple Images,

[J3] D. Cremers and K. Kolev,
Multiview Stereo and Silhouette Consistency via Convex Functionals over Convex Domains,

Merkel and D. Cremers,
A Variational Approach to Vesicle Membrane Reconstruction from Fluorescence Imaging,
Pattern Recognition, 44: 2944-2958, 2011.

[J5] K. Kolev, M. Klodt, T. Brox and D. Cremers,
Continuous Global Optimization in Multiview 3D Reconstruction,

[J6] B. Goldluecke, I. Ihrke, C. Linz and M. Magnor,
Weighted Minimal Hypersurface Reconstruction,

Book Chapters

[BC1] D. Cremers, T. Pock, K. Kolev and A. Chambolle,
Convex Relaxation Techniques for Segmentation, Stereo and Multiview Reconstruction,

Publications at Conferences and Workshops

[C1] Haefner, B., Queau, Y., Möllenhoff, T., Cremers and D.,
Fight ill-posedness with ill-posedness: Single-shot variational depth super-resolution from shading,

[C2] Dzitsiuk, M., Sturm, J., Maier, R., Ma, L., Cremers and D.,
De-noising, Stabilizing and Completing 3D Reconstructions On-the-go using Plane Priors,
Keywords: 3d-reconstruction

List of Publications

[C3] Maier, R., Schaller, R., Cremers and D.,
Efficient Online Surface Correction for Real-time Large-Scale 3D Reconstruction,
British Machine Vision Conference (BMVC), London, United Kingdom, September 2017.

[C4] Maier, R., Kim, K., Cremers, D., Kautz and J.,
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.

[C5] Peng, S., Haefner, B., Queau, Y., Cremers and D.,
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.

[C6] F. Steinbruecker, J. Sturm and D. Cremers,
Volumetric 3D Mapping in Real-Time on a CPU,
Hongkong, China, 2014.

[C7] T. Gurdan, M. R. Oswald, D. Gurdan and D. Cremers,
Spatial and Temporal Interpolation of Multi-View Image Sequences,
Münster, Germany, Vol. 36, September 2014.

[C8] M. R. Oswald and D. Cremers,
Surface Normal Integration for Convex Space-time Multi-view Reconstruction,
2014.

[C9] M. R. Oswald, J. Stühmer and D. Cremers,
Generalized Connectivity Constraints for Spatio-temporal 3D Reconstruction,

[C10] G. Kuschik and D. Cremers,
Fast and Accurate Large-scale Stereo Reconstruction using Variational Methods,
ICCV Workshop on Big Data in 3D Computer Vision, Sydney, Australia, December 2013.

[C11] M. R. Oswald and D. Cremers,
A Convex Relaxation Approach to Space Time Multi-view 3D Reconstruction,
ICCV Workshop on Dynamic Shape Capture and Analysis (4DMOD), 2013.

[C12] F. Steinbruecker, C. Kerl, J. Sturm and D. Cremers,
Large-Scale Multi-Resolution Surface Reconstruction from RGB-D Sequences,
Sydney, Australia, 2013.

[C13] M. Aubry, K. Kolev, B. Goldluecke and D. Cremers,
Decoupling Photometry and Geometry in Dense Variational Camera Calibration,
2011.

[C14] K. Kolev, T. Pock and D. Cremers,
Anisotropic Minimal Surfaces Integrating Photoconsistency and Normal Information for Multiview Stereo,
Heraklion, Greece, September 2010.
Keywords: 3d-reconstruction

List of Publications

[C15] J. Stühmer, S. Gumhold and D. Cremers,
Real-Time Dense Geometry from a Handheld Camera,
Darmstadt, Germany, 11-20, September 2010.

[C16] J. Stühmer, S. Gumhold and D. Cremers,
Parallel Generalized Thresholding Scheme for Live Dense Geometry from a Handheld Camera,
ECCV Workshop on Computer Vision on GPUs (CVGPU), Heraklion, Greece, September 2010.

[C17] K. Kolev and D. Cremers,
Continuous Ratio Optimization via Convex Relaxation with Applications to Multiview 3D Reconstruction,

[C18] B. Goldluecke and D. Cremers,
A Superresolution Framework for High-Accuracy Multiview Reconstruction,
Jena, Germany, 2009, Received DAGM Best Paper Award.

[C19] K. Kolev and D. Cremers,
Integration of Multiview Stereo and Silhouettes via Convex Functionals on Convex Domains,
Marseille, France, October 2008.

[C20] M. Klodt, T. Schoenemann, K. Kolev, M. Schikora and D. Cremers,
An Experimental Comparison of Discrete and Continuous Shape Optimization Methods,
European Conference on Computer Vision (ECCV), Marseille, France, October 2008.

[C21] K. Kolev, M. Klodt, T. Brox and D. Cremers,
Propagated Photoconsistency and Convexity in Variational Multiview 3D Reconstruction,

[C22] K. Kolev, M. Klodt, T. Brox, S. Esedoglu and D. Cremers,
Continuous Global Optimization in Multiview 3D Reconstruction,

[C23] K. Kolev, T. Brox and D. Cremers,
Robust variational segmentation of 3D objects from multiple views,

[C24] B. Goldluecke and M. Magnor,
Spacetime-Continuous Geometry Meshes from Multi-View Video Sequences,

[C25] I. Ihrke, B. Goldluecke and M. Magnor,
Reconstructing the Geometry of Flowing Water,

[C26] M. Magnor and B. Goldluecke,
Spacetime-coherent Geometry Reconstruction from Multiple Video Streams,
Keywords: 3d-reconstruction

List of Publications

[C27] B. Goldluecke and M. Magnor,
Weighted Minimal Hypersurfaces and Their Applications in Computer Vision,

[C28] B. Goldluecke and M. Magnor,
Space-Time Isosurface Evolution for Temporally Coherent 3D Reconstruction,

[C29] B. Goldluecke and M. Magnor,
Joint 3D Reconstruction and Background Separation in Multiple Views using Graph Cuts,