Journal Articles

[J1] B. Haefner, S. Peng, A. Verma, Y. Queau and D. Cremers,
Photometric Depth Super-Resolution,

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

[J3] K. Kolev, T. Brox and D. Cremers,
Fast Joint Estimation of Silhouettes and Dense 3D Geometry from Multiple Images,

[J4] D. Cremers and K. Kolev,
Multiview Stereo and Silhouette Consistency via Convex Functionals over Convex Domains,

A Variational Approach to Vesicle Membrane Reconstruction from Fluorescence Imaging,

[J6] K. Kolev, M. Klodt, T. Brox and D. Cremers,
Continuous Global Optimization in Multiview 3D Reconstruction,

[J7] 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,

Conference and Workshop Papers

[C1] 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.
Keywords: 3d-reconstruction

List of Publications

[C2] E. Bylow, R. Maier, F. Kahl and C. Olsson, 
Combining Depth Fusion and Photometric Stereo for Fine-Detailed 3D Models, 
*Scandinavian Conference on Image Analysis (SCIA)*, Norrköping, Sweden, June 2019, 
Oral Presentation, received the SCIA 2019 Honourable Mention award.

[C3] B. Haefner, Y. Queau, T. Möllenhoff and D. Cremers, 
Fight ill-posedness with ill-posedness: Single-shot variational depth super-resolution from shading, 
*IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2018, Spotlight Presentation.

[C4] M. Dzitsiuk, J. Sturm, R. Maier, L. Ma and D. Cremers, 
De-noising, Stabilizing and Completing 3D Reconstructions On-the-go using Plane Priors, 

[C5] R. Maier, R. Schaller and D. Cremers, 
Efficient Online Surface Correction for Real-time Large-Scale 3D Reconstruction, 

[C6] 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, 

[C7] 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.

[C8] F. Steinbruecker, J. Sturm and D. Cremers, 
Volumetric 3D Mapping in Real-Time on a CPU, 

[C9] T. Gurdan, M. R. Oswald, D. Gurdan and D. Cremers, 
Spatial and Temporal Interpolation of Multi-View Image Sequences, 
*German Conference on Pattern Recognition (GCPR)*, Münster, Germany, Vol. 36, sep 2014.

[C10] M. R. Oswald and D. Cremers, 
Surface Normal Integration for Convex Space-time Multi-view Reconstruction, 

[C11] M. R. Oswald, J. Stühmer and D. Cremers, 
Generalized Connectivity Constraints for Spatio-temporal 3D Reconstruction, 

[C12] G. Kuschk and D. Cremers, 
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*ICCV Workshop on Big Data in 3D Computer Vision*, Sydney, Australia, December 2013.
[C13] 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.

[C14] F. Steinbruecker, C. Kerl, J. Sturm and D. Cremers,
Large-Scale Multi-Resolution Surface Reconstruction from RGB-D Sequences,
IEEE International Conference on Computer Vision (ICCV), Sydney, Australia, 2013.

[C15] M. Aubry, K. Kolev, B. Goldluecke and D. Cremers,
Decoupling Photometry and Geometry in Dense Variational Camera Calibration,
IEEE International Conference on Computer Vision (ICCV), 2011.

[C16] J. Stühmer, S. Gumhold and D. Cremers,
Real-Time Dense Geometry from a Handheld Camera,
Pattern Recognition (Proc. DAGM), Darmstadt, Germany, 11-20, September 2010.

[C17] 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.

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

[C19] 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.

[C20] K. Kolev, M. Klodt, T. Brox and D. Cremers,
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[C21] K. Kolev, M. Klodt, T. Brox, S. Esedoglu and D. Cremers,
Continuous Global Optimization in Multiview 3D Reconstruction,

[C22] K. Kolev, T. Brox and D. Cremers,
Robust variational segmentation of 3D objects from multiple views,

[C23] B. Goldluecke and M. Magnor,
Spacetime-Continuous Geometry Meshes from Multi-View Video Sequences,
[C24] I. Ihrke, B. Goldluecke and M. Magnor,
Reconstructing the Geometry of Flowing Water,

[C25] M. Magnor and B. Goldluecke,
Spacetime-coherent Geometry Reconstruction from Multiple Video Streams,

[C26] B. Goldluecke and M. Magnor,
Weighted Minimal Hypersurfaces and Their Applications in Computer Vision,

[C27] B. Goldluecke and M. Magnor,
Space-Time Isosurface Evolution for Temporally Coherent 3D Reconstruction,

[C28] B. Goldluecke and M. Magnor,
Joint 3D Reconstruction and Background Separation in Multiple Views using Graph Cuts,