Multi-View 3D Reconstruction

List of Publications

[C1] F. Steinbruecker, J. Sturm and D. Cremers,
Volumetric 3D Mapping in Real-Time on a CPU,
\textit{Int. Conf. on Robotics and Automation}, Hongkong, China, 2014.

[C2] T. Gurdan, M. R. Oswald, D. Gurdan and D. Cremers,
Spatial and Temporal Interpolation of Multi-View Image Sequences,
\textit{German Conference on Pattern Recognition (GCPR)}, Münster, Germany, Vol. 36, September 2014.

[C3] M. R. Oswald and D. Cremers,
Surface Normal Integration for Convex Space-time Multi-view Reconstruction,
\textit{British Machine Vision Conference (BMVC)}, 2014.

[C4] M. R. Oswald, J. Stühmer and D. Cremers,
Generalized Connectivity Constraints for Spatio-temporal 3D Reconstruction,

[C1] G. Kuschk and D. Cremers,
Fast and Accurate Large-scale Stereo Reconstruction using Variational Methods,
\textit{ICCV Workshop on Big Data in 3D Computer Vision}, Sydney, Australia, December 2013.

[C2] M. R. Oswald and D. Cremers,
A Convex Relaxation Approach to Space Time Multi-view 3D Reconstruction,
\textit{ICCV Workshop on Dynamic Shape Capture and Analysis (4DMOD)}, 2013.

[C3] F. Steinbruecker, C. Kerl, J. Sturm and D. Cremers,
Large-Scale Multi-Resolution Surface Reconstruction from RGB-D Sequences,
\textit{IEEE International Conference on Computer Vision (ICCV)}, Sydney, Australia, 2013.

[J1] K. Kolev, T. Brox and D. Cremers,
Fast Joint Estimation of Silhouettes and Dense 3D Geometry from Multiple Images,

[J1] 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,
Multi-View 3D Reconstruction

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

[C1] 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.

[C1] K. Kolev, T. Pock and D. Cremers,
Anisotropic Minimal Surfaces Integrating Photoconsistency and Normal Information for Multiview Stereo,
European Conference on Computer Vision (ECCV), Heraklion, Greece, September 2010.

[C2] 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.

[C3] 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.

[J1] K. Kolev, M. Klodt, T. Brox and D. Cremers,
Continuous Global Optimization in Multiview 3D Reconstruction,

[C1] K. Kolev and D. Cremers,
Continuous Ratio Optimization via Convex Relaxation with Applications to Multiview 3D Reconstruction,

[C2] 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.

[C1] K. Kolev and D. Cremers,
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[C2] M. Klodt, T. Schoenemann, K. Kolev, M. Schikora and D. Cremers,
An Experimental Comparison of Discrete and Continuous Shape Optimization Methods,
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[J1] B. Goldluecke, I. Ihrke, C. Linz and M. Magnor,  
Weighted Minimal Hypersurface Reconstruction,  

[C1] K. Kolev, M. Klodt, T. Brox and D. Cremers,  
Propagated Photoconsistency and Convexity in Variational Multiview 3D Reconstruction,  

[C2] K. Kolev, M. Klodt, T. Brox, S. Esedoglu and D. Cremers,  
Continuous Global Optimization in Multiview 3D Reconstruction,  

[C1] K. Kolev, T. Brox and D. Cremers,  
Robust variational segmentation of 3D objects from multiple views,  

[C1] B. Goldluecke and M. Magnor,  
Spacetime-Continous Geometry Meshes from Multi-View Video Sequences,  

[C2] I. Ihrke, B. Goldluecke and M. Magnor,  
Reconstructing the Geometry of Flowing Water,  

[C1] M. Magnor and B. Goldluecke,  
Spacetime-coherent Geometry Reconstruction from Multiple Video Streams,  

[C2] B. Goldluecke and M. Magnor,  
Weighted Minimal Hypersurfaces and Their Applications in Computer Vision,  

[C3] B. Goldluecke and M. Magnor,  
Space-Time Isosurface Evolution for Temporally Coherent 3D Reconstruction,  
[C1] B. Goldluecke and M. Magnor,
Joint 3D Reconstruction and Background Separation in Multiple Views using Graph Cuts,