Multi-View 3D Reconstruction

List of Publications

[C1] F. Steinbruecker, J. Sturm and D. Cremers,
Volumetric 3D Mapping in Real-Time on a CPU,
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,
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,
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,
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,
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,
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,
Pattern Recognition, 44: 2944-2958, 2011.
## Multi-View 3D Reconstruction

### List of Publications

**[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,
*Integration of Multiview Stereo and Silhouettes via Convex Functionals on Convex Domains,*

**[C2]** M. Klodt, T. Schoenemann, K. Kolev, M. Schikora and D. Cremers,
*An Experimental Comparison of Discrete and Continuous Shape Optimization Methods,*
[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**,  
B. Goldluecke and M. Magnor,
Joint 3D Reconstruction and Background Separation in Multiple Views using Graph Cuts,