Keywords: Optical-flow

List of Publications

2018
Journal Articles
[J1] N Mayer, E Ilg, P Fischer, C Hazirbas, D Cremers, A Dosovitskiy and T Brox,
What Makes Good Synthetic Training Data for Learning Disparity and Optical
Flow Estimation?,

2015
Conference and Workshop Papers
[C1] A. Dosovitskiy, P. Fischer, E. Ilg, P. Haeusser, C. Hazirbas, V. Golkov, P. van der Smagt,
D. Cremers and T. Brox,
FlowNet: Learning Optical Flow with Convolutional Networks,
IEEE International Conference on Computer Vision (ICCV), dec 2015.

2014
Journal Articles
[J1] E. Strekalovskiy, A. Chambolle and D. Cremers,
Convex Relaxation of Vectorial Problems with Coupled Regularization,

2012
Journal Articles
[J1] B. Goldluecke, E. Strekalovskiy and D. Cremers,
The Natural Total Variation Which Arises from Geometric Measure Theory,

2011
Journal Articles
[J1] A. Wedel, T. Brox, T. Vaudrey, C. Rabe, U. Franke and D. Cremers,
Stereoscopic Scene Flow Computation for 3D Motion Understanding,

[J2] A. Sellent, M. Eisemann, B. Goldluecke, D. Cremers and M. Magnor,
Motion Field Estimation from Alternate Exposure Images,

[J3] J. Kybic and C. Nieuwenhuis,
Bootstrap Optical Flow and Uncertainty Measure,

Conference and Workshop Papers
[C1] E. Strekalovskiy, B. Goldluecke and D. Cremers,
Tight Convex Relaxations for Vector-Valued Labeling Problems,
IEEE International Conference on Computer Vision (ICCV), 2011.

[C2] M. Schikora, W. Koch and D. Cremers,
Multi-object tracking via high accuracy optical flow and finite set statistics,
International Conference on Acoustics, Speech and Signal Processing (ICASSP), Prag,
Czech Republic, Mai 2011.
2010
Conference and Workshop Papers

[C1] C. Nieuwenhuis and D. Kondermann,  
*Complex Motion Models for Simple Optical Flow Estimation*,  

[C2] C. Nieuwenhuis, B. Berkels and M. Rumpf,  
*Interactive Motion Segmentation*,  

2009
Conference and Workshop Papers

[C1] A. Sellent, M. Eisemann, B. Goldluecke, T. Pock, D. Cremers and M. Magnor,  
*Variational Optical Flow from Alternate Exposure Images*,  

[C2] A. Wedel, D. Cremers, T. Pock and H. Bischof,  
*Structure- and Motion-adaptive Regularization for High Accuracy Optic Flow*,  

[C3] F. Steinbruecker, T. Pock and D. Cremers,  
*Large Displacement Optical Flow Computation without Warping*,  

[C4] D. Mitzel, T. Pock, T. Schoenemann and D. Cremers,  
*Video Super Resolution using Duality Based TV-L1 Optical Flow*,  
*Pattern Recognition (Proc. DAGM)*, Jena, Germany, 2009.

[C5] B. Berkels, C. Nieuwenhuis, C. Garbe and M. Rumpf,  
*Reconstructing Optical Flow Fields by Motion Inpainting*,  

[C6] F. Steinbruecker, T. Pock and D. Cremers,  
*Advanced Data Terms for Variational Optic Flow Estimation*,  

PhDThesis

[PhD1] C. Nieuwenhuis,  
*Restoration and Postprocessing of Optical Flows*,  
Faculty of Mathematics and Computer Science, Heidelberg University, Germany, jul 2009.

2008
Conference and Workshop Papers

[C1] A. Wedel, C. Rabe, T. Vaudrey, T. Brox, U. Franke and D. Cremers,  
*Efficient Dense Scene Flow from Sparse or Dense Stereo Data*,  
Keywords: Optical-flow

List of Publications

[C2] A. Wedel, T. Pock, J. Braun, U. Franke and D. Cremers,
Duality TV-L1 Flow with Fundamental Matrix Prior,

[C3] A. Wedel, T. Pock, C. Zach, D. Cremers and H. Bischof,
An Improved Algorithm for TV-L1 Optical Flow,

2006

Journal Articles

[J1] N. Papenberg, A. Bruhn, T. Brox, S. Didas and J. Weickert,
Highly accurate optic flow computation with theoretically justified warping,

Book Chapters

Adaptive structure tensors and their applications,

[BC2] J. Weickert, A. Bruhn, T. Brox and N. Papenberg,
A survey on variational optic flow methods for small displacements,

Conference and Workshop Papers

[C1] T. Brox, A. Bruhn and J. Weickert,
Variational motion segmentation with level sets,

2005

Journal Articles

[J1] D. Cremers and S. Soatto,
Motion Competition: A variational framework for piecewise parametric motion segmentation,

2004

Conference and Workshop Papers

[C1] T. Brox, A. Bruhn, N. Papenberg and J. Weickert,
High accuracy optical flow estimation based on a theory for warping,
Keywords: Optical-flow

List of Publications

2003

Journal Articles

[J1] D. Cremers and C. Schnörr,
Statistical shape knowledge in variational motion segmentation,

Conference and Workshop Papers

[C1] D. Cremers and S. Soatto,
Variational space-time motion segmentation,

[C2] D. Cremers and A. L. Yuille,
A generative model based approach to motion segmentation,

2002

Conference and Workshop Papers

[C1] T. Brox and J. Weickert,
Nonlinear matrix diffusion for optic flow estimation,

[C2] D. Cremers and C. Schnörr,
Statistical shape knowledge in variational motion segmentation,
A. Pece, Y. N. Wu and R. Larsen(Eds.), 1st Internat. Workshop on Generative-Model-Based Vision, Copenhagen, Univ. of Copenhagen, June, 2 2002.