Journal Publications

[J1] V. Golkov, A. Dosovitskiy, J. I. Sperl, M. I. Menzel, M. Czisch, P. Sämann, T. Brox and D. Cremers,
q-Space Deep Learning: Twelve-Fold Shorter and Model-Free Diffusion MRI Scans,
35: 2016, Special Issue on Deep Learning.

[J2] C. Nieuwenhuis and D. Cremers,
Spatially Varying Color Distributions for Interactive Multi-Label Segmentation,

[J3] C. Nieuwenhuis, E. Toeppe and D. Cremers,
A Survey and Comparison of Discrete and Continuous Multi-label Optimization Approaches for the Potts Model,

[J4] T. Schoenemann, F. Kahl, S. Masnou and D. Cremers,
A linear framework for region-based image segmentation and inpainting involving curvature penalization,

[J5] D. Cremers,
Optimal Solutions for Semantic Image Decomposition,

Book Chapters

[BC1] M. Klodt, F. Steinbruecker and D. Cremers,
Moment Constraints in Convex Optimization for Segmentation and Tracking,

[BC2] D. Cremers,
Image Segmentation with Shape Priors: Explicit Versus Implicit Representations,

Publications at Conferences and Workshops

[C1] V. Golkov, A. Vasilev, F. Pasa, I. Lipp, W. Boubaker, E. Sgarlata, F. Pfeiffer, V. Tomassini, D. K. Jones and D. Cremers,
q-Space Novelty Detection in Short Diffusion MRI Scans of Multiple Sclerosis, 2018.

[C2] L. Ma, J. Stueckler, C. Kerl and D. Cremers,
Multi-View Deep Learning for Consistent Semantic Mapping with RGB-D Cameras,
Vancouver, Canada, Sep 2017.
Keywords: Segmentation

List of Publications

[C3] Golyanik, V., Kim, K., Maier, R., Niesner, M., Stricker, D., Kautz and J.,
Multiframe Scene Flow with Piecewise Rigid Motion,

Model-Free Novelty-Based Diffusion MRI,
Prague, Czech Republic, April 2016.

[C5] L. Ma, C. Kerl, J. Stueckler and D. Cremers,
CPA-SLAM: Consistent Plane-Model Alignment for Direct RGB-D SLAM,
May 2016.

[C6] C. Hazirbas, L. Ma, C. Domokos and D. Cremers,
, 2016.

[C7] J. Diebold, N. Demmel, C. Hazirbas, M. Möller and D. Cremers,
Interactive Multi-label Segmentation of RGB-D Images,
2015.

[C8] C. Hazirbas, J. Diebold and D. Cremers,
Optimizing the Relevance-Redundancy Tradeoff for Efficient Semantic Segmentation,
2015, Oral Presentation.

[C9] J. Stühmer and D. Cremers,
A Fast Projection Method for Connectivity Constraints in Image Segmentation,
X.-C. Tai, E. Bae, T. F. Chan and M. Lysaker(Eds.), , 2015.

Using Diffusion and Structural MRI for the Automated Segmentation of Multiple Sclerosis Lesions,
2015.

P. A. Gomez, A. Haase, T. Brox and D. Cremers,
q-Space Deep Learning for Twelve-Fold Shorter and Model-Free Diffusion MRI Scans,
Munich, Germany, October 2015.

[C12] M. Jaimez, M. Souiai, J. Stueckler, J. Gonzalez-Jimenez and D. Cremers,
Motion Cooperation: Smooth Piece-Wise Rigid Scene Flow from RGB-D Images,

[C13] M. Souiai, M. R. Oswald, Y. Kee, J. Kim, M. Pollefeys and D. Cremers,
Entropy Minimization for Convex Relaxation Approaches,
Santiago, Chile, 2015.

[C14] N. Nagaraja, F. R. Schmidt and T. Brox,
Video Segmentation with Just a Few Strokes,
Santiago, Chile, Dec 2015.
[C15] M. Strobel, J. Diebold and D. Cremers, 
Flow and Color Inpainting for Video Completion, 
*German Conference on Pattern Recognition (GCPR)*, Münster, Germany, September 2014, 
*Oral Presentation*.

[C16] C. Nieuwenhuis, S. Hawe, M. Kleinsteuber and D. Cremers, 
Co-Sparse Textural Similarity for Interactive Segmentation, 
2014.

[C17] M. Souiai, C. Nieuwenhuis, E. Strekalovskiy and D. Cremers, 
Convex Optimization for Scene Understanding, 
*ICCV Workshop on Graphical Models for Scene Understanding*, 2013.

[C18] J. Bergbauer, C. Nieuwenhuis, M. Souiai and D. Cremers, 
Proximity Priors for Variational Semantic Segmentation and Recognition, 
*ICCV Workshop on Graphical Models for Scene Understanding*, 2013.

[C19] E. Toeppe, C. Nieuwenhuis and D. Cremers, 
Volume Constraints for Single View Reconstruction, 
Portland, USA, 2013.

[C20] J. Lellmann, E. Strekalovskiy, S. Koetter and D. Cremers, 
Total Variation Regularization for Functions with Values in a Manifold, 
Sydney, Australia, December 2013.

[C21] C. Nieuwenhuis, E. Strekalovskiy and D. Cremers, 
Proportion Priors for Image Sequence Segmentation, 
Sydney, Australia, December 2013.

[C22] J. Stühmer, P. Schröder and D. Cremers, 
Tree Shape Priors with Connectivity Constraints using Convex Relaxation on General Graphs, 
Sydney, Australia, December 2013, *Oral Presentation*.

[C23] L. Gorelick, F. R. Schmidt and Y. Boykov, 
Fast Trust Region for Segmentation, 
Portland, Oregon, Jun 2013.

[C24] E. Strekalovskiy, C. Nieuwenhuis and D. Cremers, 
Nonmetric Priors for Continuous Multilabel Optimization, 
Firenze, Italy, Springer, October 2012.

[C25] N. Ufer, M. Souiai and D. Cremers, 
Wehrli 2.0: An Algorithm for Tidying up Art, 

[C26] F. R. Schmidt and Y. Boykov, 
Hausdorff Distance Constraint for Multi-Surface Segmentation, 

[C27] L. Gorelick, F. R. Schmidt, Y. Boykov, A. Delong and A. Ward, 
Segmentation with non-linear regional constraints via line-search cuts, 
Keywords: Segmentation

List of Publications

[C28] C. Nieuwenhuis, E. Toeppe and D. Cremers,
Space-Varying Color Distributions for Interactive Multiregion Segmentation: Discrete versus Continuous Approaches,
177-190, 2011.

[C29] M. Klodt and D. Cremers,
A Convex Framework for Image Segmentation with Moment Constraints,
2011.

[C30] A. Delong, L. Gorelick, F. R. Schmidt, O. Veksler and Y. Boykov,
Interactive Segmentation with Super-Labels,

[C31] C. Nieuwenhuis, B. Berkels and M. Rumpf,
Interactive Motion Segmentation,

[C32] D. Cremers, O. Fluck, M. Rousson and S. Aharon,
A probabilistic level set formulation for interactive organ segmentation,

[C33] T. Brox, A. Bruhn and J. Weickert,
Variational motion segmentation with level sets,

[C34] D. Cremers and L. Grady,
Statistical priors for combinatorial optimization: efficient solutions via Graph Cuts,

[C35] O. Fluck, S. Aharon, D. Cremers and M. Rousson,
GPU histogram computation,
2006.

[C36] T. Kohlberger, D. Cremers, M. Rousson and R. Ramaraj,
4D shape priors for level set segmentation of the left myocardium in SPECT sequences,
, Vol. 4190, 92-100, October 2006.

[C37] S. Manay, D. Cremers, A. J. Yezzi and S. Soatto,
One-shot integral invariant shape priors for variational segmentation,

[C38] M. Rousson and D. Cremers,
Efficient kernel density estimation of shape and intensity priors for level set segmentation,

[C39] 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.
MastersThesis

[M1] Caner Hazirbas,  
**Feature Selection and Learning for Semantic Segmentation,**  
Technical University Munich, Germany, June 2014.