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Motion Cooperation: Smooth Piece-Wise Rigid Scene Flow from RGB-D Images, 
[C215] E. Rodola, M. Moeller and D. Cremers,
Point-wise Map Recovery and Refinement from Functional Correspondence, 
Proceedings Vision, Modeling and Visualization (VMV), Aachen, Germany, 2015, Received the Best Paper Award.

[C216] C. Kerl, J. Stueckler and D. Cremers, 
Dense Continuous-Time Tracking and Mapping with Rolling Shutter RGB-D Cameras, 
IEEE International Conference on Computer Vision (ICCV), Santiago, Chile, 2015.

[C217] M. Souiai, M. R. Oswald, Y. Kee, J. Kim, M. Pollefeys and D. Cremers, 
Entropy Minimization for Convex Relaxation Approaches, 
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[C218] F. Stark, C. Hazirbas, R. Triebel and D. Cremers, 
CAPTCHA Recognition with Active Deep Learning, 
GCPR Workshop on New Challenges in Neural Computation, Aachen, Germany, 2015.

[C219] N. Nagaraja, F. R. Schmidt and T. Brox, 
Video Segmentation with Just a Few Strokes, 
IEEE International Conference on Computer Vision (ICCV), Santiago, Chile, Dec 2015.

Model-Based Tracking at 300Hz using Raw Time-of-Flight Observations, 
IEEE International Conference on Computer Vision (ICCV), Santiago, Chile, 2015.

[C221] J. Duran, M. Moeller, C. Sbert and D. Cremers, 
A Novel Framework for Nonlocal Vectorial Total Variation Based on \( \ell_{p,q,r} \) norms, 

Novel Acquisition Scheme for Diffusion Kurtosis Imaging Based on Compressed-Sensing Accelerated DSI Yielding Superior Image Quality, 

Total Variation-Regularized Compressed Sensing Reconstruction for Multi-Shell Diffusion Kurtosis Imaging, 

Direct Reconstruction of the Average Diffusion Propagator with Simultaneous Compressed-Sensing-Accelerated Diffusion Spectrum Imaging and Image Denoising by Means of Total Generalized Variation Regularization, 
All: 1

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[C225] V. Golkov, M.I. Menzel, T. Sprenger, A. Haase, D. Cremers and J.I. Sperl,
Semi-Joint Reconstruction for Diffusion MRI Denoising Imposing Similarity
of Edges in Similar Diffusion-Weighted Images,
International Society for Magnetic Resonance in Medicine (ISMRM) Annual Meeting,
2014.

Improved Diffusion Kurtosis Imaging and Direct Propagator Estimation Using
6-D Compressed Sensing,

[C227] D. B. AD. CJ. C D. Weikersdorfer,
Event-based 3D SLAM with a depth-augmented dynamic vision sensor,

[C228] F. Steinbruecker, J. Sturm and D. Cremers,
Volumetric 3D Mapping in Real-Time on a CPU,
International Conference on Robotics and Automation (ICRA), Hongkong, China, 2014.

[C229] E. Rodola, S. R Bulo, T. Windheuser, M. Vestner and D. Cremers,
Dense Non-Rigid Shape Correspondence Using Random Forests,

[C230] Y. Kee, M. Souiai, D. Cremers and J. Kim,
Sequential Convex Relaxation for Mutual-Information-Based Unsupervised
Figure-Ground Segmentation,

[C231] H. Alvarez, L.M. Paz, J. Sturm and D. Cremers,
Collision Avoidance for Quadrotors with a Monocular Camera,

[C232] J. Engel, T. Schöps and D. Cremers,
LSD-SLAM: Large-Scale Direct Monocular SLAM,
European Conference on Computer Vision (ECCV), September 2014, Oral Presentation.

[C233] T. Schöps, J. Engel and D. Cremers,
Semi-Dense Visual Odometry for AR on a Smartphone,
International Symposium on Mixed and Augmented Reality, September 2014, Best Short
Paper Award.

[C234] T. Windheuser, M. Vestner, E. Rodola, R. Triebel and D. Cremers,
Optimal Intrinsic Descriptors for Non-Rigid Shape Analysis,
British Machine Vision Conference (BMVC), 2014.

[C235] 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.

[C236] R. Maier, J. Sturm and D. Cremers,
Submap-based Bundle Adjustment for 3D Reconstruction from RGB-D Data,
German Conference on Pattern Recognition (GCPR), Münster, Germany, September 2014, Oral
Presentation.
All: 1

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[C237] 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.

[C238] M. R. Oswald and D. Cremers,
Surface Normal Integration for Convex Space-time Multi-view Reconstruction,

[C239] C. Nieuwenhuis, S. Hawe, M. Kleinsteuber and D. Cremers,
Co-Sparse Textural Similarity for Interactive Segmentation,

[C240] M. R. Oswald, J. Stühmer and D. Cremers,
Generalized Connectivity Constraints for Spatio-temporal 3D Reconstruction,

[C241] E. Strekalovskiy and D. Cremers,
Real-Time Minimization of the Piecewise Smooth Mumford-Shah Functional,

[C242] A. Kanezaki, E. Rodola and T. Harada,
RGB-D [RGB-D gazou kara no buttai kenshutsu ni okeru taiou tenshuugou ruijido no gakushuu],

[C243] A. Kanezaki, E. Rodola, D. Cremers and T. Harada,
[Taiou tenshuugou ruijido gakushuu wo mochiita goutai-higoutai buttai kenshutsu],

[C244] M. Andreux, E. Rodola, M. Aubry and D. Cremers,
Anisotropic Laplace-Beltrami Operators for Shape Analysis,
Sixth Workshop on Non-Rigid Shape Analysis and Deformable Image Alignment (NOR-DIA), 2014.

[C245] O. Dunkley, J. Engel, J. Sturm and D. Cremers,
Visual-Inertial Navigation for a Camera-Equipped 25g Nano-Quadrotor,

[C246] R. Triebel, J. Stühmer, M. Souiai and D. Cremers,
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[C247] S. Debnath, S. S. Baishya, R. Triebel, V. Dutt and D. Cremers,
Environment-adaptive Learning: How Clustering Helps to Obtain Good Training Data,

[C248] A. Kanezaki, E. Rodola, D. Cremers and T. Harada,
Learning Similarities for Rigid and Non-Rigid Object Detection,
[C249] D. Bender, M. Schikora, J. Sturm and D. Cremers,  
INS-Camera Calibration without Ground Control Points,  
9th IEEE ISIF Workshop on Sensor Data Fusion: Trends, Solutions, Applications (SDF), 2014.

[C250] C. Kerl, M. Souiai, J. Sturm and D. Cremers,  
Towards Illumination-invariant 3D Reconstruction using ToF RGB-D Cameras,  
International Conference on 3D Vision (3DV), 2014.

[C251] J. Stueckler and S. Behnke,  
Adaptive Tool-Use Strategies for Anthropomorphic Service Robots,  

[C252] D. Droeschel, J. Stueckler and S. Behnke,  
Local Multi-Resolution Surfel Grids for MAV Motion Estimation and 3D Mapping,  

[C253] J. Stueckler, A. Gutt and S. Behnke,  
Combining the Strengths of Sparse Interest Point and Dense Image Registration for RGB-D Odometry,  
Proc. of the Joint 45th International Symposium on Robotics (ISR) and 8th German Conference on Robotics (ROBOTIK), to appear, jun 2014.

[C254] J. Stueckler and S. Behnke,  
Efficient deformable registration of multi-resolution surfel maps for object manipulation skill transfer,  

[C255] D. Droeschel, J. Stueckler and S. Behnke,  
Local multi-resolution representation for 6D motion estimation and mapping with a continuously rotating 3D laser scanner,  
Proc. of the IEEE Int. Conf. on Robotics and Automation (ICRA), 5221-5226, may 2014.

[C256] M. Schwarz, J. Stueckler and S. Behnke,  
Mobile Teleoperation Interfaces with Adjustable Autonomy for Personal Service Robots,  

[C257] F. R. Schmidt, T. Windheuser, U. Schlickewei and D. Cremers,  
Dense Elastic 3D Shape Matching,  

[C258] J Bergbauer and S Tari,  
Wimmelbild Analysis with Approximate Curvature Coding Distance Images,  
[C259] J Bergbauer and S Tari,  
Top-down visual search in Wimmelbild,  

[C260] F. Bergamasco, A. Albarelli, E. Rodola and A. Torsello,  
Can a fully unconstrained imaging model be applied effectively to central cameras?,  
*IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2013.

[C261] M. Souiai, C. Nieuwenhuis, E. Strekalovskiy and D. Cremers,  
Convex Optimization for Scene Understanding,  
*ICCV Workshop on Graphical Models for Scene Understanding*, 2013.

[C262] 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.

[C263] V. Golkov, T. Sprenger, A. Menini, M.I. Menzel, D. Cremers and J.I. Sperl,  
Effects of Low-Rank Constraints, Line-Process Denoising, and q-Space Compressed Sensing on Diffusion MR Image Reconstruction and Kurtosis Tensor Estimation,  

[C264] V. Golkov, T. Sprenger, M.I. Menzel, D. Cremers and J.I. Sperl,  
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*European Society for Magnetic Resonance in Medicine and Biology (ESMRMB) Annual Meeting*, 2013, Certificate of Merit Award.

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[C266] V. Golkov, M.I. Menzel, T. Sprenger, A. Menini, D. Cremers and J.I. Sperl,  
Corrected Joint SENSE Reconstruction, Low-Rank Constraints, and Compressed-Sensing-Accelerated Diffusion Spectrum Imaging in Denoising and Kurtosis Tensor Estimation,  
*ISMRM Workshop on Diffusion as a Probe of Neural Tissue Microstructure*, 2013.

SNR-dependent Quality Assessment of Compressed-Sensing-Accelerated Diffusion Spectrum Imaging Using a Fiber Crossing Phantom,  

Phase Sensitive Reconstruction in Diffusion Spectrum Imaging Enabling Velocity Encoding and Unbiased Noise Distribution,  
Noise Reduction in Accelerated Diffusion Spectrum Imaging through Integration of SENSE Reconstruction into Joint Reconstruction in Combination with q-Space Compressed Sensing, 

[C270] C. Kerl, J. Sturm and D. Cremers, 
Robust Odometry Estimation for RGB-D Cameras, 

[C271] E. Toeppe, C. Nieuwenhuis and D. Cremers, 
Volume Constraints for Single View Reconstruction, 
*IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, Portland, USA, 2013.

Toward Automated Driving in Cities using Close-to-Market Sensors, 

Knowing When We Don’t Know: Introspective Classification for Mission-Critical Decision Making, 

[C274] A. SD. C D. Weikersdorfer, 
Depth-adative Supervoxels for RGB-D Video Segmentation, 

[C275] R. Triebel, H. Grimmett and I. Posner, 
Confidence Boosting: Improving the Introspectiveness of a Boosted Classifier for Efficient Learning, 

Introspective Active Learning for Scalable Semantic Mapping, 

[C277] E. Bylow, J. Sturm, C. Kerl, F. Kahl and D. Cremers, 
Real-Time Camera Tracking and 3D Reconstruction Using Signed Distance Functions, 

[C278] E. Bylow, J. Sturm, C. Kerl, F. Kahl and D. Cremers, 
Direct Camera Pose Tracking and Mapping With Signed Distance Functions, 
*Demo Track of the RGB-D Workshop on Advanced Reasoning with Depth Cameras at the Robotics: Science and Systems Conference (RSS)*, June 2013.
[C279] J. Sturm and W. Burgard,
Learning Probabilistic Models for Mobile Manipulation Robots,
Proc. of the International Joint Conference on Artificial Intelligence (IJCAI), Track on Best papers in Sister Conferences, 2013.

[C280] M. Souiai, E. Strekalovskiy, C. Nieuwenhuis and D. Cremers,
A Co-occurrence Prior for Continuous Multi-Label Optimization,

[C281] F. Stangl, M. Souiai and D. Cremers,
Performance Evaluation of Narrow Band Methods for Variational Stereo,
35th German Conference on Pattern Recognition (GCPR), 2013.

[C282] T. Möllenhoff, C. Nieuwenhuis, E. Toeppe and D. Cremers,
Efficient Convex Optimization for Minimal Partition Problems with Volume Constraints,

[C283] C. Kerl, J. Sturm and D. Cremers,
Dense Visual SLAM for RGB-D Cameras,

[C284] T. Naseer, J. Sturm and D. Cremers,
FollowMe: Person Following and Gesture Recognition with a Quadrocopter,

[C285] M. Klodt, J. Sturm and D. Cremers,
Scale-Aware Object Tracking with Convex Shape Constraints on RGB-D Images,
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[C286] J. Sturm, E. Bylow, F. Kahl and D. Cremers,
Dense Tracking and Mapping with a Quadrocopter,
Unmanned Aerial Vehicle in Geomatics (UAV-g), Rostock, Germany, September 2013.

[C287] D. Bender, M. Schikora, J. Sturm and D. Cremers,
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Unmanned Aerial Vehicle in Geomatics (UAV-g), Rostock, Germany, September 2013, Best research paper award.

[C288] J. Sturm, E. Bylow, F. Kahl and D. Cremers,
CopyMe3D: Scanning and Printing Persons in 3D,
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[C289] E. Rodola, T. Harada, Y. Kuniyoshi and D. Cremers,
Efficient Shape Matching using Vector Extrapolation,

[C290] J. Engel, J. Sturm and D. Cremers,
Semi-Dense Visual Odometry for a Monocular Camera,
IEEE International Conference on Computer Vision (ICCV), Sydney, Australia, December 2013.
E. Rodola, A. Torsello, T. Harada, Y. Kuniyoshi and D. Cremers, 
Elastic Net Constraints for Shape Matching, 
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J. Lellmann, E. Strekalovskiy, S. Koetter and D. Cremers, 
Total Variation Regularization for Functions with Values in a Manifold, 
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C. Nieuwenhuis, E. Strekalovskiy and D. Cremers, 
Proportion Priors for Image Sequence Segmentation, 
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J. Stühmer, P. Schröder and D. Cremers, 
Tree Shape Priors with Connectivity Constraints using Convex Relaxation on General Graphs, 
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G. Kuschk and D. Cremers, 
Fast and Accurate Large-scale Stereo Reconstruction using Variational Methods, 
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M. R. Oswald and D. Cremers, 
A Convex Relaxation Approach to Space Time Multi-view 3D Reconstruction, 
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F. Steinbruecker, C. Kerl, J. Sturm and D. Cremers, 
Large-Scale Multi-Resolution Surface Reconstruction from RGB-D Sequences, 
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T. Naseer, J. Sturm and D. Cremers, 
Interactive Person Following and Gesture Recognition with a Flying Robot, 
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Driven Learning for Driving: How Introspection Improves Semantic Mapping, 
The International Symposium on Robotics Research (ISRR), 2013.

D. Cremers, E. Rodola and T. Windheuser, 
Relaxations for Minimizing Metric Distortion and Elastic Energies for 3D Shape Matching, 

M. Schadler, J. Stueckler and S. Behnke, 
Multi-resolution surfel mapping and real-time pose tracking using a continuously rotating 2D laser scanner, 
[C302] J. Stueckler and S. Behnke,
Efficient Dense 3D Rigid-Body Motion Segmentation in RGB-D Video,

[C303] M. McElhone, J. Stueckler and S. Behnke,
Joint detection and pose tracking of multi-resolution surfel models in RGB-D,

[C304] T. Fiolka, J. Stueckler, D. A. Klein, D. Schulz and S. Behnke,
Distinctive 3D surface entropy features for place recognition,

[C305] A. Berner, J Li, D. Holz, J. Stueckler, S. Behnke and R. Klein,
Combining contour and shape primitives for object detection and pose estimation of prefabricated parts,

[C306] J. Stueckler and S. Behnke,
Hierarchical Object Discovery and Dense Modelling From Motion Cues in RGB-D Video,

[C307] M. Nieuwenhuisen, D. Droeschel, D. Holz, J. Stueckler, A. Berner, J Li, R. Klein and S. Behnke,
Mobile bin picking with an anthropomorphic service robot,

[C308] L. Gorelick, F. R. Schmidt and Y. Boykov,
Fast Trust Region for Segmentation,

[C309] L. Ma, T. Whelan, E. Bondarev, P. H. N. de With and J. McDonald,
Planar simplification and texturing of dense point cloud maps,

[C310] E. Rodola, A.M. Bronstein, A. Albarelli, F. Bergamasco and A. Torsello,
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[C311] F. Endres, J. Hess, N. Engelhard, J. Sturm, D. Cremers and W. Burgard,
An Evaluation of the RGB-D SLAM System,

[C312] T. Ruehr, J. Sturm, D. Pangercic, M. Beetz and D. Cremers,
A Generalized Framework for Opening Doors and Drawers in Kitchen Environments,


[C325] J. Sturm, W. Burgard and D. Cremers,
Evaluating Egomotion and Structure-from-Motion Approaches Using the TUM RGB-D Benchmark,

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[C328] N. Ufer, M. Souiai and D. Cremers,
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*Proc. of the 12th IEEE-RAS Int. Conf. on Humanoid Robots (Humanoids)*, 618-624, nov 2012.

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[C333] J. Stueckler and S. Behnke,
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[C335] T. Fiolka, J. Stueckler, D. A. Klein, D. Schulz and S. Behnke,
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[C336] G. M. Garcia, D. A. Klein, J. Stueckler, S. Frintrop and A. B. Cremers,
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[C337] J. Stueckler and S. Behnke,

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[C342] F. R. Schmidt and Y. Boykov,
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[C343] L. Gorelick, F. R. Schmidt, Y. Boykov, A. Delong and A. Ward,
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[C345] F. Bergamasco, A. Albarelli, E. Rodola and A. Torsello,
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Geometrically Consistent Elastic Matching of 3D Shapes: A Linear Programming Solution,
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[C349] M. Aubry, U. Schlickewei and D. Cremers,
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[C351] E. Strekalovskiy and D. Cremers,
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Introducing Total Curvature for Image Processing,
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[C353] E. Strekalovskiy, B. Goldluecke and D. Cremers,
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[C356] J. Hess, J. Sturm and W. Burgard,
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Towards a benchmark for RGB-D SLAM evaluation,

[C359] C. Nieuwenhuis, E. Toeppe and D. Cremers,
Space-Varying Color Distributions for Interactive Multiregion Segmentation: Discrete versus Continuous Approaches,

[C360] M. Klodt and D. Cremers,
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*Workshop on Live Dense Reconstruction with Moving Cameras at the Intl. Conf. on Computer Vision (ICCV)*, 2011.

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*Proc. of the IROS’11 Workshop on Results, Challenges and Lessons Learned in Advancing Robots with a Common Platform*, San Francisco, CA, USA, 2011.

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[C367] M. Oispuu and M. Schikora,
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A Survey on Geometry Recovery from a Single Image with Focus on Curved Object Reconstruction,

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[C372] J. Maye, R. Triebel, L. Spinello and R. Siegwart,
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[C373] B. Oehler, J. Stueckler, J. Welle, D. Schulz and S. Behnke,
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[C378] J. Stueckler and S. Behnke, 
Interest point detection in depth images through scale-space surface analysis, 
Proc. of the IEEE Int. Conf. on Robotics and Automation (ICRA), 3568-3574, May 2011.

[C379] D. Droeschel, J. Stueckler and S. Behnke, 
Learning to Interpret Pointing Gestures with a Time-of-flight Camera, 

[C380] F. R. Schmidt, H. Ackermann and B. Rosenhahn, 
Multilinear Model Estimation with L2-Regularization, 

[C381] A. Delong, L. Gorelick, F. R. Schmidt, O. Veksler and Y. Boykov, 
Interactive Segmentation with Super-Labels, 

[C382] A. Albarelli, E. Rodola and A. Torsello, 
Robust Camera Calibration using Inaccurate Targets, 

[C383] E. Rodola, A. Albarelli and A. Torsello, 
A Game-Theoretic Approach to Robust Selection of Multi-View Point Correspondence, 
20th International Conference on Pattern Recognition (ICPR), 57-60, 2010.

[C384] A. Albarelli, E. Rodola, A. Cavallarin and A. Torsello, 
Robust Figure Extraction on Textured Background: a Game-Theoretic Approach, 

[C385] E. Rodola, A. Albarelli and A. Torsello, 
A Game-Theoretic Approach to the Enforcement of Global Consistency in Multi-View Feature Matching, 

[C386] A. Albarelli, E. Rodola and A. Torsello, 
A Game-Theoretic Approach to Fine Surface Registration without Initial Motion Estimation, 

[C387] A. Albarelli, E. Rodola and A. Torsello, 
Robust Game-Theoretic Inlier Selection for Bundle Adjustment, 
5th International Symposium on 3D Data Processing, Visualization and Transmission (3DPVT), 2010, Best Student Paper Award.

[C388] A. Albarelli, E. Rodola and A. Torsello, 
Loosely Distinctive Features for Robust Surface Alignment, 
M. Schikora, A. Schikora, K.-H. Kogel, W. Koch and D. Cremers,
Probabilistic Classification of Disease Symptoms caused by Salmonella on Arabidopsis Plants,
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M. Schikora, D. Bender, D. Cremers and W. Koch,
Passive Multi-Object Localization and Tracking Using Bearing Data,

M. Schikora, D. Bender, W. Koch and D. Cremers,
Multi-target multi-sensor localization and tracking using passive antenna and optical sensors on UAVs,

E. Toeppe, M. R. Oswald, D. Cremers and C. Rother,
Image-based 3D Modeling via Cheeger Sets,
Asian Conference on Computer Vision, Queenstown, New Zealand, 53-64, nov 2010, Received Honorable Mention Award.

J. Stührmer, S. Gumhold and D. Cremers,
Real-Time Dense Geometry from a Handheld Camera,
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J. Stührmer, S. Gumhold and D. Cremers,
Parallel Generalized Thresholding Scheme for Live Dense Geometry from a Handheld Camera,
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B. Goldluecke and D. Cremers,
An Approach to Vectorial Total Variation based on Geometric Measure Theory,

B. Goldluecke and D. Cremers,
Convex Relaxation for Multilabel Problems with Product Label Spaces,

C. Nieuwenhuis and D. Kondermann,
Complex Motion Models for Simple Optical Flow Estimation,

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

J. Sturm, K. Konolige, C. Stachniss and W. Burgard,
3D Pose Estimation, Tracking and Model Learning of Articulated Objects from Dense Depth Video using Projected Texture Stereo,
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[C400] J. Sturm, K. Konolige, C. Stachniss and W. Burgard,
Vision-based Detection for Learning Articulation Models of Cabinet Doors and Drawers in Household Environments,

[C401] S. Chitta, M. Piccoli and J. Sturm,
Tactile Object Class and Internal State Recognition for Mobile Manipulation,

[C402] J. Sturm, A. Jain, C. Stachniss, C. C. Kemp and W. Burgard,
Operating Articulated Objects Based on Experience,

[C403] R. Kaestner, N. Engelhard, R. Triebel and R. Siegwart,
A Bayesian Approach to Learning 3D Representations of Dynamic Environments,

[C404] L. Spinello, R. Triebel, D. Vasquez, K. Arras and R Siegwart,
Exploiting Repetitive Object Patterns for Model Compression and Completion,

[C405] R. Triebel, J. Shin and R. Siegwart,
Segmentation and Unsupervised Part-based Discovery of Repetitive Objects,

[C406] L. Spinello, K. O. Arras, R. Triebel and R. Siegwart,
A Layered Approach to People Detection in 3D Range Data,
special track on Physically Grounded AI of AAAI, 2010.

[C407] J. Shin, R. Triebel and R. Siegwart,
Unsupervised Discovery of Repetitive Objects,

[C408] J. Maye, L. Spinello, R. Triebel and R. Siegwart,
Inferring the Semantics of Direction Signs in Public Places,

[C409] K. Gräve, J. Stueckler and S. Behnke,
Improving imitated grasping motions through interactive expected deviation learning,
Proc. of the 10th IEEE-RAS Int. Conf. on Humanoid Robots (Humanoids), 397-404, dec 2010.

[C410] J. Stueckler and S. Behnke,
Combining depth and color cues for scale- and viewpoint-invariant object segmentation and recognition using Random Forests,
[C411] J. Stueckler and S. Behnke,
Improving People Awareness of Service Robots by Semantic Scene Knowledge,
del Solar, Javier Ruiz, Chown, Eric, Plöger and Paul-Gerhard(Eds.), RobuCup, Springer,

[C412] D. Holz, R. Schnabel, D. Droeschel, J. Stueckler and S. Behnke,
Towards Semantic Scene Analysis with Time-of-flight Cameras,
del Solar, Javier Ruiz, Chown, Eric, Plöger and Paul-Gerhard(Eds.), RobuCup, Springer,

[C413] H. Schulz, W. Liu, J. Stueckler and S. Behnke,
Utilizing the Structure of Field Lines for Efficient Soccer Robot Localization,
del Solar, Javier Ruiz, Chown, Eric, Plöger and Paul-Gerhard(Eds.), RobuCup, Springer,

[C414] K. Gräve, J. Stueckler and S. Behnke,
Learning Motion Skills from Expert Demonstrations and Own Experience using Gaussian Process Regression,

[C415] M. Nieuwenhuisen, J. Stueckler and S. Behnke,
Intuitive Multimodal Interaction for Domestic Service Robots,

[C416] M. Nieuwenhuisen, J. Stueckler and S. Behnke,
Improving indoor navigation of autonomous robots by an explicit representation of doors,
Proc. of the IEEE Int. Conf. on Robotics and Automation (ICRA), 4895-4901, may 2010.

[C417] D. Droeschel, D. Holz, J. Stueckler and S. Behnke,
Using Time-of-Flight cameras with active gaze control for 3D collision avoidance,
Proc. of the IEEE Int. Conf. on Robotics and Automation (ICRA), 4035-4040, may 2010.

[C418] I. Mösenlechner, N. Demmel and M. Beetz,
Becoming action-aware through reasoning about logged plan execution traces,

[C419] A. Albarelli, E. Rodola, S. R. Bulo and A. Torsello,
Fast 3D surface reconstruction by unambiguous compound phase coding,
the 2009 IEEE International Workshop on 3D Digital Imaging and Modeling (3DIM),

[C420] M. R. Oswald, E. Toeppe, K. Kolev and D. Cremers,
Non-Parametric Single View Reconstruction of Curved Objects using Convex Optimization,
Pattern Recognition (Proc. DAGM), Jena, Germany, 171-180, September 2009, Received a DAGM Paper Award.

[C421] F. R. Schmidt and D. Cremers,
A Closed-Form Solution for Image Sequence Segmentation with Dynamical Shape Priors,
Pattern Recognition (Proc. DAGM), Jena, Germany, September 2009.
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List of Publications

[C422] F. R. Schmidt, E. Toeppe and D. Cremers,
Efficient Planar Graph Cuts with Applications in Computer Vision,
IEEE Conference on Computer Vision and Pattern Recognition (CVPR), Miami, Florida,
351-356, jun 2009, Received a CVPR Doctoral Spotlight Award.

[C423] T. Pock, A. Chambolle, H. Bischof and D. Cremers,
A Convex Relaxation Approach for Computing Minimal Partitions,
IEEE Conference on Computer Vision and Pattern Recognition (CVPR), Miami, Florida,
2009.

[C424] A. Wedel, C. Rabe, A. Meissner, U. Franke and D. Cremers,
Detection and Segmentation of Independently Moving Objects from Dense
Scene Flow,
D. Cremers, Y. Boykov, A. Blake and F. R. Schmidt(Eds.), Energy Minimization Methods

[C425] B. Goldluecke and D. Cremers,
A Superresolution Framework for High-Accuracy Multiview Reconstruction,
Pattern Recognition (Proc. DAGM), Jena, Germany, 2009, Received DAGM Best Pa-
per Award.

[C426] B. Goldluecke and D. Cremers,
Superresolution Texture Maps for Multiview Reconstruction,
IEEE International Conference on Computer Vision (ICCV), Kyoto, Japan, 2009.

[C427] A. Sellent, M. Eisemann, B. Goldluecke, T. Pock, D. Cremers and M. Magnor,
Variational Optical Flow from Alternate Exposure Images,

[C428] T. Pock, D. Cremers, H. Bischof and A. Chambolle,
An Algorithm for Minimizing the Piecewise Smooth Mumford-Shah Func-
tional,
IEEE International Conference on Computer Vision (ICCV), Kyoto, Japan, 2009.

[C429] A. Wedel, D. Cremers, T. Pock and H. Bischof,
Structure- and Motion-adaptive Regularization for High Accuracy Optic Flow,
IEEE International Conference on Computer Vision (ICCV), Kyoto, Japan, 2009.

[C430] T. Schoenemann, F. Kahl and D. Cremers,
Curvature Regularity for Region-based Image Segmentation and Inpainting:
A Linear Programming Relaxation,
IEEE International Conference on Computer Vision (ICCV), Kyoto, Japan, 2009.

[C431] T. Windheuser, T. Schoenemann and D. Cremers,
Beyond Connecting the Dots: A Polynomial-time Algorithm for Segmentation
and Boundary Estimation with Imprecise User Input,
IEEE International Conference on Computer Vision (ICCV), Kyoto, Japan, 2009.

[C432] F. Steinbruecker, T. Pock and D. Cremers,
Large Displacement Optical Flow Computation without Warping,
IEEE International Conference on Computer Vision (ICCV), Kyoto, Japan, 2009.

[C433] 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.
[C434] B. Berkels, C. Nieuwenhuis, C. Garbe and M. Rumpf,
Reconstructing Optical Flow Fields by Motion Inpainting,
_Energy Minimization Methods in Computer Vision and Pattern Recognition (EMMCVPR)_,

[C435] C. Eppner, J. Sturm, M. Bennewitz, C. Stachniss and W. Burgard,
Imitation Learning with Generalized Task Descriptions,
_International Conference on Robotics and Automation (ICRA)_,
Kobe, Japan, May 2009.

[C436] H. Schulz, L. Ott, J. Sturm and W. Burgard,
Learning Kinematics from Direct Self-Observation Using Nearest-Neighbor Methods,

[C437] J. Sturm, C. Stachniss, V. Pradeep, C. Plagemann, K. Konolige and W. Burgard,
Towards Understanding Articulated Objects,
_Proc. of the Workshop on Robot Manipulation at Robotics: Science and Systems Conference (RSS)_,
June 2009.

[C438] J. Sturm, V. Pradeep, C. Stachniss, C. Plagemann, K. Konolige and W. Burgard,
Learning Kinematic Models for Articulated Objects,
_Proc. of the International Joint Conference on Artificial Intelligence (IJCAI)_,
July 2009.

[C439] D. Meyer-Delius, J. Sturm and W. Burgard,
Regression-Based Online Situation Recognition for Vehicular Traffic Scenarios,
_Proc. of the International Conference on Intelligent Robot Systems (IROS)_,

[C440] A. Schneider, J. Sturm, C. Stachniss, M. Reisert, H. Burkhardt and W. Burgard,
Object Identification with Tactile Sensors Using Bag-of-Features,
_Proc. of the International Conference on Intelligent Robot Systems (IROS)_,

[C441] F. Steinbruecker, T. Pock and D. Cremers,
Advanced Data Terms for Variational Optic Flow Estimation,
_Proceedings Vision, Modeling and Visualization (VMV)_,
Braunschweig, Germany, 2009.

[C442] M. Schikora and B. Romba,
A Framework for Multiple Radar and Multiple 2D/3D Camera Fusion,
_4th IEEE ISIF Workshop on Sensor Data Fusion: Trends, Solutions, Applications (SDF)_,
Luebeck, Germany, October 2009.

[C443] M. Schikora,
Global Optimal Multiple Object Detection using the Fusion of Shape and Color Information,
_7th International Conference on Energy Minimization Methods in Computer Vision and Pattern Recognition (EMMCVPR)_,
Bonn, Germany, August 2009.

[C444] M. Schikora, M. Häge, E. Ruthotto and K. Wild,
A Convex Formulation for Color Image Segmentation in the Context of Passive Emitter Localization,
_12th International Conference on Information Fusion (FUSION)_,
Seattle, WA, USA, July 2009.

[C445] L. Spinello, A. Macho, R. Triebel and R. Siegwart,
Detecting Pedestrians at Very Small Scales,
_Proc. of the International Conference on Intelligent Robots and Systems (IROS)_,
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[C446] L. Spinello, R. Triebel and R. Siegwart,
Multiclass Multimodal Detection and Tracking in Urban Environments,
Proc. of Field and Service Robotics (FSR), 2009.

[C447] D. Engel, L. Spinello, R. Triebel, C. Curio, R. Siegwart and H. Bülthoff,
Medial Features for Superpixel Segmentation,

[C448] J. Stueckler and S. Behnke,
Integrating indoor mobility, object manipulation, and intuitive interaction for
domestic service tasks,
Proc. of the IEEE-RAS Int. Conf. on Humanoid Robots (Humanoids), 506-513, dec 2009.

[C449] J. Stueckler, M. Schreiber and S. Behnke,
Dynamaid, an Anthropomorphic Robot for Research on Domestic Service Applications,

[C450] T. Schoenemann, F. R. Schmidt and D. Cremers,
Image Segmentation with Elastic Shape Priors via Global Geodesics in Product
Spaces,

[C451] T. Pock, T. Schoenemann, G. Graber, H. Bischof and D. Cremers,
A Convex Formulation of Continuous Multi-Label Problems,
European Conference on Computer Vision (ECCV), Marseille, France, October 2008.

[C452] A. Wedel, C. Rabe, T. Vaudrey, T. Brox, U. Franke and D. Cremers,
Efficient Dense Scene Flow from Sparse or Dense Stereo Data,
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[C453] A. Wedel, T. Pock, J. Braun, U. Franke and D. Cremers,
Duality TV-L1 Flow with Fundamental Matrix Prior,

[C454] 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.

[C455] A. Wedel, T. Pock, C. Zach, D. Cremers and H. Bischof,
An Improved Algorithm for TV-L1 Optical Flow,

[C456] W. Trobin, T. Pock, D. Cremers and H. Bischof,
An Unbiased Second-Order Prior for High-Accuracy Motion Estimation,
Pattern Recognition (Proc. DAGM), Munich, Germany, Springer, LNCS, jun 2008.

[C457] D. Cremers, F. R. Schmidt and F. Barthel,
Shape Priors in Variational Image Segmentation: Convexity, Lipschitz Continuity and Globally Optimal Solutions,


[C469] J. Sturm, C. Plagemann and W. Burgard,
Body Scheme Learning and Life-Long Adaptation for Robotic Manipulation,

[C470] D. Kondermann, C. Nieuwenhuis, A. Berthe, U. Kertzscher and C. Garbe,
Motion Estimation Based on a Temporal Model of Fluid Flows,

[C471] L. Spinello, R. Triebel and R. Siegwart,
Multimodal Detection and Tracking of Pedestrians in Urban Environments
with Explicit Ground Plane Extraction,

[C472] L. Spinello, R. Triebel and R. Siegwart,
Multimodal People Detection and Tracking in Crowded Scenes,

[C473] J. Stueckler, H. Schulz and S. Behnke,
In-lane Localization in Road Networks using Curbs Detected in Omnidirectional
Height Images,

[C474] J. Stueckler and S. Behnke,
Orthogonal wall correction for visual motion estimation,
Proc. of the IEEE Int. Conf. on Robotics and Automation (ICRA), 1-6, may 2008.

[C475] S. Frintrop, M. Klodt and E. Rome,
A Real-time Visual Attention System Using Integral Images,
5th International Conference on Computer Vision Systems (ICVS 2007), Bielefeld, Germany, March 2007.

[C476] S. May, M. Klodt, E. Rome and R. Breithaupt,
GPU-accelerated Affordance Cueing based on Visual Attention,

[C477] K. Kolev, M. Klodt, T. Brox and D. Cremers,
Propagated Photoconsistency and Convexity in Variational Multiview 3D Reconstruction,

[C478] K. Kolev, M. Klodt, T. Brox, S. Esedoglu and D. Cremers,
Continuous Global Optimization in Multiview 3D Reconstruction,

[C479] T. Brox, B. Rosenhahn, D. Cremers and H.-P. Seidel,
Nonparametric density estimation with adaptive anisotropic kernels for human
motion tracking,
A. Elgammal, B. Rosenhahn and R. Klette(Eds.), Proc. 2nd International Workshop on
[C480] T. Schoenemann and D. Cremers,
Globally Optimal Image Segmentation with an Elastic Shape Prior,

[C481] T. Schoenemann and D. Cremers,
Introducing Curvature into Globally Optimal Image Segmentation: Minimum Ratio Cycles on Product Graphs,

[C482] F. R. Schmidt, D Farin and D. Cremers,
Fast Matching of Planar Shapes in Sub-cubic Runtime,

[C483] F. R. Schmidt, E. Toeppe, D. Cremers and Y. Boykov,
Intrinsic Mean for Semimetrical Shape Retrieval via Graph Cuts,

[C484] A. Wedel and U. Franke,
Monocular Video Serves RADAR-based Emergency Braking,

[C485] A. Wedel, T. Schoenemann, T. Brox and D. Cremers,
WarpCut - Fast obstacle segmentation in monocular video,

[C486] C. Schmaltz, B. Rosenhahn, T. Brox, D. Cremers, J. Weickert, L. Wietzke and G. Sommer,
Occlusion Modeling by Tracking Multiple Objects,

[C487] B. Rosenhahn, T. Brox, D. Cremers and H.-P. Seidel,
Online smoothing for markerless motion capture,

[C488] F. R. Schmidt, E. Toeppe, D. Cremers and Y. Boykov,
Efficient Shape Matching via Graph Cuts,

[C489] B. Rosenhahn, T. Brox and H.-P. Seidel,
Scaled motion dynamics for markerless motion capture,

[C490] D. Cremers,
Nonlinear Dynamical Shape Priors for Level Set Segmentation,

[C491] T. Brox and D. Cremers,
On the Statistical Interpretation of the Piecewise Smooth Mumford-Shah Functional,
T. Brox and D. Cremers,
Iterated Nonlocal Means for Texture Restoration,

C. Schmaltz, B. Rosenhahn, T. Brox, D. Cremers, J. Weickert, L. Wietzke and G. Sommer,
Region-based Pose Tracking,

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

C. Nieuwenhuis, D. Kondermann and B. Jähne,
An Adaptive Confidence Measure for Optical Flows Based on Linear Subspace Projections,

C. Nieuwenhuis, D. Kondermann and M. Yan,
Blood vessel classification into arteries and veins in retinal images,

R. Kümmerle, O. M Mozos and W. Burgard,
Collective Classification for Labeling of Places and Objects in 2D and 3D Range Data,

R. Kümmerle, P. Pfaff, R. Triebel and W. Burgard,
Active Monte Carlo Localization in Outdoor Terrains using Multi-Level Surface Maps,
Fachgespräche Autonome Mobile Systeme (AMS), 2007.

R. Triebel and W. Burgard,
Recovering the Shape of Objects in 3D Point Clouds with Partial Occlusions,

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Monte Carlo Localization in Outdoor Terrains using Multi-Level Surface Maps,

P. Pfaff, R. Triebel, C. Stachniss, P. Lamon, W. Burgard and R. Siegwart,
Towards Mapping of Cities,

R. Triebel, R. Schmidt, O. M Mozos and W. Burgard,
Instance-based AMN Classification for Improved Object Recognition in 2D and 3D Laser Range Data,
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[C514] T. Brox, Y.-J. Kim, J. Weickert and W. Feiden,
Fully-automated analysis of muscle fiber images with combined region and
edge based active contours,

[C515] D. Cremers and L. Grady,
Statistical priors for combinatorial optimization: efficient solutions via Graph
Cuts,

[C516] D. Cremers, C. Guetter and C. Xu,
Nonparametric priors on the space of joint intensity distributions for non-rigid
multi-modal image registration,
*IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, Vol. 2, 1777-
1783, June 2006.

[C517] O. Fluck, S. Aharon, D. Cremers and M. Rousson,
GPU histogram computation,
*ACM SIGGRAPH posters and demos*, 2006.

[C518] T. Kohlberger, D. Cremers, M. Rousson and R. Ramaraj,
4D shape priors for level set segmentation of the left myocardium in SPECT
sequences,

[C519] C. Nieuwenhuis and M. Yan,
Knowledge Based Image Enhancement Using Neural Networks,

[C520] D. A. van Sand M. de Greef, J. Sturm and A. Visser,
Autonomous Color Learning in an Artificial Environment,
*Proc. of the Belgian-Netherlands Artificial Intelligence Conference (BNAIC)*, Namur, Bel-

[C521] J. Sturm, P. van Rossum and A. Visser,
Panoramic Localization in the 4-Legged League,
G. Lakemeyer, E. Sklar, D. Sorrenti and T. Takahashi(Eds.), *Proc. of the RoboCup In-
2006.

[C522] A. Visser, J. Sturm and F.C.A. Groen,
Robot companion localization at home and in the office,
*Proc. of the Belgian-Netherlands Artificial Intelligence Conference (BNAIC)*, Namur, Bel-

[C523] A. Visser, P. van Rossum, J. Westra, J. Sturm and D. A. van Sand M. de Greef,
Dutch AIBO Team at RoboCup 2006,

[C524] R. Triebel, P. Pfaff and W. Burgard,
Multi-Level Surface Maps for Outdoor Terrain Mapping and Loop Closing,
[C525] R. Triebel, K. Kersting and W. Burgard,  
**Robust 3D Scan Point Classification using Associative Markov Networks**,  

[C526] H. Andreasson, R. Triebel and A. Lilienthal,  
**Vision-based Interpolation of 3D Laser Scans**,  

**See, walk, and kick: Humanoid robots start to play soccer**,  
*Proc. of the IEEE-RAS Int. Conf. on Humanoid Robots (Humanoids)*, 497-503, dec 2006.

[C528] M. Breus, T. Brox, T. Sonar and J. Weickert,  
**Stabilised nonlinear inverse diffusion for approximating hyperbolic PDEs**,  
R. Kimmel, N. Sochen and J. Weickert(Eds.), *Scale Space and PDE Methods in Computer Vision*, Hofgeismar, Germany, Springer, LNCS, 536-547, apr 2005.

[C529] T. Brox, B. Rosenhahn and J. Weickert,  
**Three-dimensional shape knowledge for joint image segmentation and pose estimation**,  

[C530] D. Cremers and G. Funka-Lea,  
**Dynamical statistical shape priors for level set based tracking**,  

[C531] S. Manay, D. Cremers, A. J. Yezzi and S. Soatto,  
**One-shot integral invariant shape priors for variational segmentation**,  

[C532] B. Rosenhahn, U. Kersting, D. Smith, J. Gurney, T. Brox and R. Klette,  
**A system for marker-less human motion estimation**,  
W. Kropatsch, R. Sablatnig and A. Hanbury(Eds.), *Pattern Recognition (Proc. DAGM)*, Vienna, Austria, Springer, LNCS, Vol. 3663, 109-116, aug 2005, 60;a href='http://www.prip.tuwien.ac.at/dagm05/awards.php'¿Received the best paper award60;/a¿

[C533] M. Rousson and D. Cremers,  
**Efficient kernel density estimation of shape and intensity priors for level set segmentation**,  

[C534] M. Welk, D. Theis, T. Brox and J. Weickert,  
**PDE based deconvolution with forward-backward diffusivities and diffusion tensors**,  
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C546] D. Cremers, N. Sochen and C. Schnörr,
Multiphase dynamic labeling for variational recognition-driven image segmentation,

C547] H. Jin, D. Cremers, A. Yezzi and S. Soatto,
Shedding light on stereoscopic segmentation,

C548] M. Magnor and B. Goldluecke,
Spacetime-coherent Geometry Reconstruction from Multiple Video Streams,

C549] B. Goldluecke and M. Magnor,
Weighted Minimal Hypersurfaces and Their Applications in Computer Vision,

C550] B. Goldluecke and M. Magnor,
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C551] R. Triebel, B. Frank, J. Meyer and W. Burgard,
First steps towards a robotic system for flexible volumetric mapping of indoor environments,

C552] T. Brox, M. Rousson, R. Deriche and J. Weickert,
Unsupervised segmentation incorporating colour, texture, and motion,

C553] T. Brox, M. Welk, G. Steidl and J. Weickert,
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C554] D. Cremers,
A variational framework for image segmentation combining motion estimation and shape regularization,

C555] D. Cremers,
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D. Cremers and S. Soatto,
A pseudo-distance for shape priors in level set segmentation,

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Variational space-time motion segmentation,

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A generative model based approach to motion segmentation,

G. Doretto, D. Cremers, P. Favaro and S. Soatto,
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M. Rousson, T. Brox and R. Deriche,
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Joint 3D Reconstruction and Background Separation in Multiple Views using Graph Cuts,

B. Goldluecke and M. Magnor,
Real-time Microfacet Billboarding for Free-viewpoint Video Rendering,

B. Goldluecke and M. Magnor,
Real-time, Free-viewpoint Video Rendering from Volumetric Geometry,

C. Petz, B. Goldluecke and M. Magnor,
Hardware-accelerated Autostereogram Rendering for Interactive 3D Visualization,
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