Vladimir Golkov

List of 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*,

[C1] V. Golkov, T. Sprenger, J. I. Sperl, M. I. Menzel, M. Czisch, P. Sämann and D. Cremers,
*Model-Free Novelty-Based Diffusion MRI*,
*IEEE International Symposium on Biomedical Imaging (ISBI)*, Prague, Czech Republic, April 2016.

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

*Robustness of Phase Sensitive Reconstruction in Diffusion Spectrum Imaging*,

[C3] A. Menini, V. Golkov and F. Wiesinger,
*Free-Breathing, Self-Navigated RUFIS Lung Imaging with Motion Compensated Image Reconstruction*,

[C4] V. Golkov, J. M. Portegies, A. Golkov, R. Duits and D. Cremers,
*Holistic Image Reconstruction for Diffusion MRI*,
*MICCAI 2015 Workshop on Computational Diffusion MRI*, Munich, Germany, Springer, October 2015, Oral Presentation and Book Chapter.

[C5] P. Fischer, A. Dosovitskiy, E. Ilg, P. Husser, C. Hazrba, 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)*, December 2015.

*q-Space Deep Learning for Twelve-Fold Shorter and Model-Free Diffusion MRI Scans*,
*Medical Image Computing and Computer Assisted Intervention (MICCAI)*, Munich, Germany, October 2015.
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,

Semi-Joint Reconstruction for Diffusion MRI Denoising Imposing Similarity of Edges in Similar Diffusion-Weighted Images,

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

Joint Super-Resolution Using Only One Anisotropic Low-Resolution Image per q-Space Coordinate,

[C1] 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,

[C2] V. Golkov, T. Sprenger, M.I. Menzel, D. Cremers and J.I. Sperl,
Line-Process-Based Joint SENSE Reconstruction of Diffusion Images with Intensity Inhomogeneity Correction and Noise Non-Stationarity Correction,
*European Society for Magnetic Resonance in Medicine and Biology (ESMRMB) Annual Meeting*, 2013, *Certificate of Merit Award*. 
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List of Publications

[C3] V. Golkov, M.I. Menzel, T. Sprenger, A. Menini, D. Cremers and J.I. Sperl,
Reconstruction, Regularization, and Quality in Diffusion MRI Using the Example of Accelerated Diffusion Spectrum Imaging,
16th Annual Meeting of the German Chapter of the ISMRM, 2013, Oral Presentation.

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,

Evaluation of DSI Imaging with Compressed Sensing under the Presence of Different Noise Levels on a Diffusion Phantom,

Comparison of Diffusion Kurtosis Tensor Estimation Methods in an Advanced Quality Assessment Framework,