2019
Journal Articles

[J1] F. Pasa, V. Golkov, F. Pfeiffer, D. Cremers and D. Pfeiffer, 
Efficient Deep Network Architectures for Fast Chest X-Ray Tuberculosis Screening and Visualization, 

[J2] J. Schuchardt, V. Golkov and D. Cremers, 
Learning to Evolve, 

[J3] L. Della Libera, V. Golkov, Y. Zhu, A. Mielke and D. Cremers, 
Deep Learning for 2D and 3D Rotatable Data: An Overview of Methods, 

Conference and Workshop Papers

[C1] A. Vasilev, V. Golkov, M. Meissner, I. Lipp, E. Sgarlata, V. Tomassini, D. K. Jones and D. Cremers, 
q-Space Novelty Detection with Variational Autoencoders, 
*MICCAI 2019 International Workshop on Computational Diffusion MRI, 2019, Oral Presentation*.

[C2] P. Swazinna, V. Golkov, I. Lipp, E. Sgarlata, V. Tomassini, D. K. Jones and D. Cremers, 
Negative-Unlabeled Learning for Diffusion MRI, 2019.

[C3] B. T. Do, V. Golkov, G. E. Gürel and D. Cremers, 

2018
Journal Articles

[J1] E. Aljalbout, V. Golkov, Y. Siddiqui, M. Strobel and D. Cremers, 
Clustering with Deep Learning: Taxonomy and New Methods, 

Conference and Workshop Papers

[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.


[C3] B. T. Do, V. Golkov, G. E. Gürel and D. Cremers, 
Author: V. Golkov

List of Publications

[C4] P. Haeusser, J. Plapp, V. Golkov, E. Aljalbout and D. Cremers,

Associative Deep Clustering - Training a Classification Network with no Labels,

Proc. of the German Conference on Pattern Recognition (GCPR), October 2018.

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[J1] V. Golkov, M. J. Skwark, A. Mirchev, G. Dikov, A. R. Geanes, J. Mendenhall, J. Meiler and D. Cremers,

3D Deep Learning for Biological Function Prediction from Physical Fields,


[J2] J. Kukacka, V. Golkov and D. Cremers,

Regularization for Deep Learning: A Taxonomy,


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Establishment of an interdisciplinary workflow of machine learning-based Radiomics in sarcoma patients,


2016

Journal Articles


Bias and Precision Analysis of Diffusional Kurtosis Imaging for Different Acquisition Schemes,

2016.

[J2] 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.

Conference and Workshop Papers

[C1] V. Golkov, T. Sprenger, J. I. Sperl, M. I. Menzel, M. Czisch, P. Sämann and D. Cremers,

Model-Free Novelty-Based Diffusion MRI,

Prague, Czech Republic, April 2016.

[C2] V. Golkov, M. J. Skwark, A. Golkov, A. Dosovitskiy, T. Brox, J. Meiler and D. Cremers,

Protein Contact Prediction from Amino Acid Co-Evolution Using Convolutional Networks for Graph-Valued Images,

Barcelona, Spain, December 2016.
2015
Book Chapters
[BC1] V. Golkov, J. M. Portegies, A. Golkov, R. Duits and D. Cremers,
Holistic Image Reconstruction for Diffusion MRI,
*Computational Diffusion MRI*, Munich, Germany, Springer, October 2015, Book Chapter, and Oral Presentation at MICCAI 2015 Workshop on Computational Diffusion MRI.

Conference and Workshop Papers
Using Diffusion and Structural MRI for the Automated Segmentation of Multiple Sclerosis Lesions,
2015.
Robustness of Phase Sensitive Reconstruction in Diffusion Spectrum Imaging,
2015.
[C3] A. Menini, V. Golkov and F. Wiesinger,
Free-Breathing, Self-Navigated RUFIS Lung Imaging with Motion Compensated Image Reconstruction,
2015.
q-Space Deep Learning for Twelve-Fold Shorter and Model-Free Diffusion MRI Scans,
Munich, Germany, October 2015.
[C5] A. Dosovitskiy, P. Fischer, E. Ilg, P. Haeusser, C. Hazirbas, V. Golkov, P. van der Smagt, D. Cremers and T. Brox,
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December 2015.

2014
Book Chapters
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*Computational Diffusion MRI*, Springer, 2014, Book Chapter, and Oral Presentation at MICCAI 2014 Workshop on Computational Diffusion MRI.

Conference and Workshop Papers
Novel Acquisition Scheme for Diffusion Kurtosis Imaging Based on Compressed-Sensing Accelerated DSI Yielding Superior Image Quality,
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2013 Conference and Workshop Papers


Phase Sensitive Reconstruction in Diffusion Spectrum Imaging Enabling Velocity Encoding and Unbiased Noise Distribution,
2013.

Noise Reduction in Accelerated Diffusion Spectrum Imaging through Integration of SENSE Reconstruction into Joint Reconstruction in Combination with q-Space Compressed Sensing,
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Evaluation of DSI Imaging with Compressed Sensing under the Presence of Different Noise Levels on a Diffusion Phantom,
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Comparison of Diffusion Kurtosis Tensor Estimation Methods in an Advanced Quality Assessment Framework,
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