

2019

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- [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,
Scientific Reports, 9(1): 6268, 2019.
- [J2] S. Roy, A.T.D. Gruenwald, A. Alves-Pinto, R. Maier, D. Cremers, D. Pfeiffer and R. Lampe,
A Non-invasive 3D Body Scanner and Software Tool towards Analysis of Scoliosis,
BioMed Research International (BMRI), May 2019.

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,
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- [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] V. Golkov, P. Swazinna, M. M. Schmitt, Q. A. Khan, C. M. W. Tax, M. Serahlazau, F. Pasa, F. Pfeiffer, G. J. Biessels, A. Leemans and D. Cremers,
q-Space Deep Learning for Alzheimer’s Disease Diagnosis: Global Prediction and Weakly-Supervised Localization,
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- [C3] B. T. Do, V. Golkov, G. E. Gürel and D. Cremers,
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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,
arXiv preprint arXiv:1704.04039, 2017.

- [J2] Krieg, Michael, Stühmer, Jan, Cueva, Juan G, Fetter, Richard, Spilker, Kerri, Cremers, Daniel, Shen, Kang, Dunn, Alexander R, Goodman and Miriam B,
Genetic defects in s-spectrin and tau sensitize C. elegans axons to movement-induced damage via torque-tension coupling,
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- [J3] Krieg, Michael, Stühmer, Jan, Cueva, Juan G, Fetter, Richard, Spilker, Kerri, Cremers, Daniel, Shen, Kang, Dunn, Alex R, Goodman and Miriam B,
Tau Like Proteins Reduce Torque Generation in Microtubule Bundles,
Biophysical Journal, 112(3): 29a-30a, 2017.

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- [C1] J.C. Peeken, C. Knie, V. Golkov, K. Kessel, F. Pasa, Q. Khan, M. Seroglazov, J. Kukacka, T. Goldberg, L. Richter, J. Reeb, B. Rost, F. Pfeiffer, D. Cremers, F. Nüsslin and S.E. Combs,
Establishment of an interdisciplinary workflow of machine learning-based Radiomics in sarcoma patients,
23. Jahrestagung der Deutschen Gesellschaft für Radioonkologie (DEGRO), 2017.

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- [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.**

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- [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.

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- [J1] M. Klodt, K. Herzog, R. Töpfer and D. Cremers,
Field phenotyping of grapevine growth using dense stereo reconstruction,
BMC Bioinformatics, 16(143): May 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.**

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- [C1] 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.
- [C2] P.A. Gomez, T. Sprenger, A.A. Lopez, J.I. Sperl, B. Fernandez, M. Molina-Romero, X. Liu, V. Golkov, M. Czisch, P. Saemann, M.I. Menzel and B.H. Menze,
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- [C3] M.I. Menzel, T. Sprenger, E.T. Tan, V. Golkov, C.J. Hardy, L. Marinelli and J.I. Sperl,
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- [C4] A. Menini, V. Golkov and F. Wiesinger,
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2015.
- [C5] V. Golkov, A. Dosovitskiy, P. Sämann, J. I. Sperl, T. Sprenger, M. Czisch, M. I. Menzel, P. A. Gomez, A. Haase, T. Brox and D. Cremers,
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Munich, Germany, October 2015.

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- [BC1] V. Golkov, J.I. Sperl, M.I. Menzel, T. Sprenger, E.T. Tan, L. Marinelli, C.J. Hardy, A. Haase and D. Cremers,
Joint Super-Resolution Using Only One Anisotropic Low-Resolution Image per q-Space Coordinate,
Computational Diffusion MRI, Springer, 2014, **Book Chapter, and Oral Presentation at MICCAI 2014 Workshop on Computational Diffusion MRI.**

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- [C1] T. Sprenger, J.I. Sperl, B. Fernandez, V. Golkov, E.T. Tan, C.J. Hardy, L. Marinelli, M. Czisch, P. Sämann, A. Haase and M.I. Menzel,
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- [C2] J.I. Sperl, T. Sprenger, E.T. Tan, V. Golkov, M.I. Menzel, C.J. Hardy and L. Marinelli,
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- [C3] V. Golkov, M.I. Menzel, T. Sprenger, M. Souiai, A. Haase, D. Cremers and J.I. Sperl,
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- [C4] V. Golkov, M.I. Menzel, T. Sprenger, A. Haase, D. Cremers and J.I. Sperl,
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- [C5] V. Golkov, M.I. Menzel, T. Sprenger, M. Souiai, A. Haase, D. Cremers and J.I. Sperl,
Improved Diffusion Kurtosis Imaging and Direct Propagator Estimation Using 6-D Compressed Sensing,
2014.

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- [J1] C. Nieuwenhuis and D. Cremers,
Spatially Varying Color Distributions for Interactive Multi-Label Segmentation,
35(5): 1234-1247, 2013.

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- [BC1] M. Klodt, F. Steinbruecker and D. Cremers,
Moment Constraints in Convex Optimization for Segmentation and Tracking,
Advanced Topics in Computer Vision, Springer, 2013.

Conference and Workshop Papers

- [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,
2013, **Oral Presentation.**
- [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,
2013, **Certificate of Merit Award.**
- [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,
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- [C4] V. Golkov, M.I. Menzel, T. Sprenger, A. Menini, D. Cremers and J.I. Sperl,
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- [C5] T. Sprenger, B. Fernandez, J.I. Sperl, V. Golkov, M. Bach, E.T. Tan, K.F. King, C.J. Hardy, L. Marinelli, M. Czisch, P. Sämann, A. Haase and M.I. Menzel,
SNR-dependent Quality Assessment of Compressed-Sensing-Accelerated Diffusion Spectrum Imaging Using a Fiber Crossing Phantom,
2013.

- [C6] J.I. Sperl, E.T. Tan, T. Sprenger, V. Golkov, K.F. King, C.J. Hardy, L. Marinelli and M.I. Menzel,
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- [C7] V. Golkov, T. Sprenger, M.I. Menzel, E.T. Tan, K.F. King, C.J. Hardy, L. Marinelli, D. Cremers and J.I. Sperl,
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- [C8] J. Stühmer, P. Schröder and D. Cremers,
Tree Shape Priors with Connectivity Constraints using Convex Relaxation on General Graphs,
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Technical Reports

- [R1] M. Souiai, E. Strelakovski, C. Nieuwenhuis and D. Cremers,
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Technical report 2013.

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- [J1] S. Chen, D. Cremers and R. J. Radke,
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- [J2] M. Schikora, B. Neupane, S. Madhogaria, W. Koch, D. Cremers, H. Hirt, K.-H. Kogel and A. Schikora,
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- [C1] T. Sprenger, B. Fernandez, M. Bach, J.I. Sperl, V. Golkov, E.T. Tan, L. Marinelli, K.F. King, C.J. Hardy, Q. Zhu, M. Czisch, P. Sämann, A. Haase and M.I. Menzel,
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- [C2] V. Golkov, J.I. Sperl, T. Sprenger, H.-J. Bungartz, M. Sedlacek, E.T. Tan, L. Marinelli, C.J. Hardy, K.F. King and M.I. Menzel,
Comparison of Diffusion Kurtosis Tensor Estimation Methods in an Advanced Quality Assessment Framework,
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- [J1] K. Kolev, N. Kirchgessner, S. Houben, A. Csiszar, W. Rubner, C. Palm, B. Eiben, R. Merkel and D. Cremers,
A Variational Approach to Vesicle Membrane Reconstruction from Fluorescence Imaging,
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- [C1] M. Klodt and D. Cremers,
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- [C2] S. Madhogaria, M. Schikora, W. Koch and D. Cremers,
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- [C1] T. Pock, A. Chambolle, H. Bischof and D. Cremers,
A Convex Relaxation Approach for Computing Minimal Partitions,
Miami, Florida, 2009.

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- [J1] D. Cremers, M. Rousson and R. Deriche,
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- [BC1] D. Cremers and M. Rousson,
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- [C1] D. Cremers, O. Fluck, M. Rousson and S. Aharon,
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- [J1] D. Cremers and A. V. M. Herz,
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