Keywords: Deep Learning

List of Publications

2021
Journal Articles

[J1] P. Müller, V. Golkov, V. Tomassini and D. Cremers,
    Rotation-Equivariant Deep Learning for Diffusion MRI,

Conference and Workshop Papers

[C1] F. Wimbauer, N. Yang, L. von Stumberg, N. Zeller and D Cremers,
    MonoRec: Semi-Supervised Dense Reconstruction in Dynamic Environments
    from a Single Moving Camera,
    *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2021.

[C2] P. Müller, V. Golkov, V. Tomassini and D. Cremers,
    Rotation-Equivariant Deep Learning for Diffusion MRI (short version),
    *International Society for Magnetic Resonance in Medicine (ISMRM) Annual Meeting*
    2021.

[C3] Y. Xia, Y. Xu, S. Li, R. Wang, J. Du, D. Cremers and U. Stilla,
    SOE-Net: A Self-Attention and Orientation Encoding Network for Point Cloud based Place Recognition,
    *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2021, *Oral Presentation*.

[C4] C Tomani, S Gruber, ME Erdem, D Cremers and F Buettner,
    Post-hoc Uncertainty Calibration for Domain Drift Scenarios,
    *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2021, *Oral Presentation*.

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[J1] V. Golkov, A. Becker, D. T. Plop, D. 38;268uturilo, N. Davoudi, J. Mendenhall, R. Moretti, J. Meiler and D. Cremers,
    Deep Learning for Virtual Screening: Five Reasons to Use ROC Cost Functions,

[J2] G Fabbro, V Golkov, T Kemp and D Cremers,
    Speech Synthesis and Control Using Differentiable DSP,

[J3] I Chiotellis and D Cremers,
    Neural Online Graph Exploration,

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    and D. Cremers,
    3D Deep Learning for Biological Function Prediction from Physical Fields,
Keywords: Deep Learning

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[C2] N. Yang, L. von Stumberg, R. Wang and D. Cremers,
D3VO: Deep Depth, Deep Pose and Deep Uncertainty for Monocular Visual Odometry,

[C3] J Liu, I Chiotellis, R Triebel and D Cremers,
Effective Version Space Reduction for Convolutional Neural Networks,
European Conference on Machine Learning and Data Mining (ECML-PKDD), 2020.

[C4] L. von Stumberg, P. Wenzel, N. Yang and D. Cremers,
LM-Reloc: Levenberg-Marquardt Based Direct Visual Relocalization,

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,

[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,

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[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,

2018
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[J1] E. Aljalbout, V. Golkov, Y. Siddiqui, M. Strobel and D. Cremers,
Clustering with Deep Learning: Taxonomy and New Methods,

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What Makes Good Synthetic Training Data for Learning Disparity and Optical Flow Estimation?,
Keywords: Deep Learning

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*Asian Conference on Computer Vision (ACCV)*, December 2018.

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Precursor microRNA Identification Using Deep Convolutional Neural Networks,

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Deep Virtual Stereo Odometry: Leveraging Deep Depth Prediction for Monocular Direct Sparse Odometry,

2017

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[J1] J. Kukacka, V. Golkov and D. Cremers,
Regularization for Deep Learning: A Taxonomy,

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[C1] F. Walch, C. Hazirbas, L. Leal-Taixe, T. Sattler, S. Hilsenbeck and D. Cremers,
Image-based localization using LSTMs for structured feature correlation,

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

[C3] P. Haeusser, A. Mordvintsev and D. Cremers,
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Keywords: Deep Learning

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[C4] T. Meinhardt, M. Moeller, C. Hazirbas and D. Cremers,
Learning Proximal Operators: Using Denoising Networks for Regularizing Inverse Imaging Problems,

One-Shot Video Object Segmentation,
*IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, Honolulu, USA, 2017.

[C6] K. Kurach, S. Gelly, M. Jastrzebski, P. Haeusser, O. Teytaud, D. Vincent and O. Bousquet,
Better Text Understanding Through Image-To-Text Transfer,

[C7] P. Haeusser, T. Frerix, A. Mordvintsev and D. Cremers,
Associative Domain Adaptation,

2016

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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,

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[C1] 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,
*Annual Conference on Neural Information Processing Systems (NIPS)*, Barcelona, Spain, dec 2016, Oral Presentation (acceptance rate: under 2%).

[C2] C. Hazirbas, L. Ma, C. Domokos and D. Cremers,
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Asian Conference on Computer Vision*, november 2016.

[C3] S. Sharifzadeh, I. Chiotellis, R. Triebel and D. Cremers,
Learning to Drive using Inverse Reinforcement Learning and Deep Q-Networks,
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2015

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[C2] 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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[C3] F. Stark, C. Hazirbas, R. Triebel and D. Cremers,
CAPTCHA Recognition with Active Deep Learning,
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