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Journal Articles

[J1] C Tomani, F Waseda, Y Shen and D Cremers,
Beyond In-Domain Scenarios: Robust Density-Aware Calibration,

[J2] S Klenk, L Koestler, D Scaramuzza and D Cremers,
E-nerf: Neural radiance fields from a moving event camera,

[J3] D Zhu, Q Khan and D Cremers,
Multi-Vehicle Trajectory Prediction at Intersections using State and Intention Information,

[J4] Q Khan, I Siilö, M Ocal and D Cremers,
Learning vision based autonomous lateral vehicle control without supervision,

[J5] T Wimmer, V Golkov, HN Dang, M Zaiss, A Maier and D Cremers,
Scale-Equivariant Deep Learning for 3D Data,

[J6] HN Dang, V Golkov, T Wimmer, D Cremers, A Maier and M Zaiss,
Joint MR sequence optimization beats pure neural network approaches for spin-echo MRI super-resolution,

[J7] M Zaiss, HN Dang, V Golkov, J Rajput, D Cremers, F Knoll and A Maier,
GPT4MR: Exploring GPT-4 as an MR Sequence and Reconstruction Programming Assistant,

[J8] L Sang, A Saroha, M Gao and D Cremers,
Weight-Aware Implicit Geometry Reconstruction with Curvature-Guided Sampling,

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[C1] F Hofherr, L Koestler, F Bernard and D Cremers,
Neural Implicit Representations for Physical Parameter Inference from a Single Video,

[C2] L Sang, B Haefner, X Zuo and D Cremers,
High-Quality RGB-D Reconstruction via Multi-View Uncalibrated Photometric Stereo and Gradient-SDF,
IEEE Winter Conference on Applications of Computer Vision (WACV), Hawaii, USA, January 2023.
[C3] L Härenstam-Nielsen, N Zeller and D Cremers,
Semidefinite Relaxations for Robust Multiview Triangulation,

[C4] S Weber, N Demmel, T Chon Chan and D Cremers,
Power Bundle Adjustment for Large-Scale 3D Reconstruction,

[C5] F Wimbauer, N Yang, C Rupprecht and D Cremers,
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[C6] V Ehm, D Cremers and F Bernard,
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[J1] M Brahimi, B Haefner, T Yenamandra, B Goldluecke and D Cremers,
SupeRVol: Super-Resolution Shape and Reflectance Estimation in Inverse Volume Rendering,

[J2] Z. Ye, B. Haefner, Y. Queau, T. Möllenhoff and D. Cremers,
A Cutting-Plane Method for Sublabel-Accurate Relaxation of Problems with Product Label Spaces,
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[J3] C Tomani and D Cremers,
Challenger: Training with Attribution Maps,

[J4] L. von Stumberg and D. Cremers,
DM-VIO: Delayed Marginalization Visual-Inertial Odometry,

Deep Learning in Attosecond Metrology,
Optics Express, 30(9): 15669-15684, 2022, Editor’s Pick.

[J6] T Yenamandra, A Tewari, N Yang, F Bernard, C Theobalt and D Cremers,
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[J7] A Saroha, M Eisenberger, T Yenamandra and D Cremers,
Implicit Shape Completion via Adversarial Shape Priors,

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[J9] P Wenzel, N Yang, R Wang, N Zeller and D Cremers,  
4Seasons: Benchmarking Visual SLAM and Long-Term Localization for Autonomous Driving in Challenging Conditions,  

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DynamicEarthNet: Daily Multi-Spectral Satellite Dataset for Semantic Change Segmentation,  

[C2] M. Eisenberger, A. Toker, L. Leal-Taixe, F. Bernard and D. Cremers,  
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[C3] C Tomani, D Cremers and F Buettner,  
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[C4] J. Veraart and 100 coauthors,  
A data-driven variability assessment of brain diffusion MRI preprocessing pipelines,  

[C5] C Sommer, L Sang, D Schubert and D Cremers,  
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[C6] Z Ye, T Yenamandra, F Bernard and D Cremers,  
Joint Deep Multi-Graph Matching and 3D Geometry Learning from Inhomogeneous 2D Image Collections,  
AAAI, 2022.

[C7] D Muhle, L Koenstler, N Demmel, F Bernard and D Cremers,  
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[C8] F Müller, Q Khan and D Cremers,  
Lateral Ego-Vehicle Control Without Supervision Using Point Clouds,  

[C9] L Hang, Q Khan, V Tresp and D Cremers,  
Biologically Inspired Neural Path Finding,  
[C10] D Das, Q Khan and D Cremers,
Ventriloquist-Net: Leveraging Speech Cues for Emotive Talking Head Generation,

[C11] L Koestler, D Grittner, M Moeller, D Cremers and Z Lähner,
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[C12] M Gladkova, N Korobov, N Demmel, A Osep, L Leal-Taixe and D Cremers,
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[C13] HHH Hsu, Y Shen, C Tomani and D Cremers,
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*NeurIPS*, 2022.

[C14] Y Shen and D Cremers,
Deep Combinatorial Aggregation,
*NeurIPS*, 2022.

[C15] HHH Hsu, Y Shen and D Cremers,
A Graph Is More Than Its Nodes: Towards Structured Uncertainty-Aware Learning on Graphs,

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[J1] H. Bauermeister, E. Laude, T. Moellenhoff, M. Moeller and D. Cremers,
Lifting the convex conjugate in Lagrangian relaxations: A Tractable Approach for Continuous Markov Random Fields,

[J2] P. Müller, V. Golkov, V. Tomassini and D. Cremers,
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[J3] J. Chui, S. Klenk and D. Cremers,
Event-Based Feature Tracking in Continuous Time with Sliding Window Optimization,

[J4] M. Mozes, M. Schmitt, V. Golkov, H. Schütze and D. Cremers,
Scene Graph Generation for Better Image Captioning?,

[J5] M Weber, H Wang, S Qiao, J Xie, MD Collins, Y Zhu, L Yuan, D Kim, Q Yu, D Cremers and others,
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*IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2021, *Oral Presentation*.

[C14] P. Wenzel, T. Schön, L. Leal-Taixe and D. Cremers,
Vision-Based Mobile Robotics Obstacle Avoidance With Deep Reinforcement Learning,

[C15] N Demmel, C Sommer, D Cremers and V Usenko,
Square Root Bundle Adjustment for Large-Scale Reconstruction,
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[C16] 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*.

[C17] N Demmel, D Schubert, C Sommer, D Cremers and V Usenko,
Square Root Marginalization for Sliding-Window Bundle Adjustment,

[C18] MW Wudenka, MG Müller, N Demmel, A Wedler, R Triebel, D Cremers and W Stuerzl,
Towards Robust Monocular Visual Odometry for Flying Robots on Planetary Missions,

[C19] S Klenk, J Chui, N Demmel and D Cremers,
TUM-VIE: The TUM Stereo Visual-Inertial Event Dataset,

[C20] L Koestler, N Yang, N Zeller and D Cremers,
TANDEM: Tracking and Dense Mapping in Real-time using Deep Multi-view Stereo,
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[C21] S Weber, N Demmel and D Cremers,
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**C22**  Y Wang, Y Shen and D Cremers,  
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**C23**  V Ehm, D Cremers and F Bernard,  
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**C24**  M Weber, J Xie, M Collins, Y Zhu, P Voigtlaender, H Adam, B Green, A Geiger, B Leibe, D Cremers and others,  
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**J1**  E. Laude, P. Ochs and D. Cremers,  
Bregman Proximal Mappings and Bregman-Moreau Envelopes under Relative Prox-Regularity,  

**J2**  B. Haefner, S. Peng, A. Verma, Y. Queau and D. Cremers,  
Photometric Depth Super-Resolution,  

**J3**  V. Golkov, A. Becker, D. T. Plop, D. Cuturilo, N. Davoudi, J. Mendenhall, R. Moretti, J. Meiler and D. Cremers,  
Deep Learning for Virtual Screening: Five Reasons to Use ROC Cost Functions,  

**J4**  V. Usenko, N. Demmel, D. Schubert, J. Stueckler and D. Cremers,  
Visual-Inertial Mapping with Non-Linear Factor Recovery,  

**J5**  L. von Stumberg, P. Wenzel, Q. Khan and D. Cremers,  
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**J6**  C. Sommer, Y. Sun, L. J. Guibas, D. Cremers and T. Birdal,  
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[C4] 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,  
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[C5] P. Swazinna, V. Golkov, I. Lipp, E. Sgarlata, V. Tomassini, D. K. Jones and D. Cremers,  
Negative-Unlabeled Learning for Diffusion MRI,  

[C6] D. Schubert, N. Demmel, L. von Stumberg, V. Usenko and D. Cremers,  
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[C7] M. Eisenberger, Z. Lähner and D. Cremers,  
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[C8] E. Laude, T. Wu and D. Cremers,  
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[C9] T. Möllenhoff and D. Cremers,  
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[C10] T. Möllenhoff and D. Cremers,  
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[C11] Q. Khan, P. Wenzel, D. Cremers and L. Leal-Taixe,  
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[C12] M. Moeller, T. Möllenhoff and D. Cremers,  
Controlling Neural Networks via Energy Dissipation,  
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[C13] E. Jung, N. Yang and D. Cremers,  
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*Conference on Robot Learning (CoRL)*, 2019, Full Oral Presentation.

[C14] S. Weiss, R. Maier, R. Westermann, D. Cremers and N. Thuerey,  
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[C15] P. Brechet, T. Wu, T. Möllenhoff and D. Cremers,  
Informative GANs via Structured Regularization of Optimal Transport,  
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[J1] J. Engel, V. Koltun and D. Cremers,
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[J2] N. Yang, R. Wang, X. Gao and D. Cremers,
Challenges in Monocular Visual Odometry: Photometric Calibration, Motion Bias and Rolling Shutter Effect,

[J3] Y. Queau, B. Durix, T. Wu, D. Cremers, F. Lauze and J.-D. Durou,
LED-based Photometric Stereo: Modeling, Calibration and Numerical Solution,

[J4] B Bringmann, D Cremers and F Krahmer,
The homotopy method revisited: Computing solution paths of L1-regularized problems,

[J5] J. Melou, Y. Queau, J.-D. Durou, F. Castan and D. Cremers,
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[J6] P. Bergmann, R. Wang and D. Cremers,
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[J7] B. T. Do, V. Golkov, G. E. Gürel and D. Cremers,
Precursor microRNA Identification Using Deep Convolutional Neural Networks,

[J8] E. Aljalbout, V. Golkov, Y. Siddiqui, M. Strobel and D. Cremers,
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What Makes Good Synthetic Training Data for Learning Disparity and Optical Flow Estimation?,

Omnidirectional DSO: Direct Sparse Odometry with Fisheye Cameras,
[J11] L. Ma, J. Stueckler, T. Wu and D. Cremers,
    Detailed Dense Inference with Convolutional Neural Networks via Discrete Wavelet Transform,
    Aug 2018.

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[C1] R. Henschel, L. Leal-Taixe, D. Cremers and B. Rosenhahn,
    Fusion of Head and Full-Body Detectors for Multi-Object Tracking,

[C2] C. Sommer and D. Cremers,
    Joint Representation of Primitive and Non-primitive Objects for 3D Vision,

[C3] C. Hazirbas, S. G. Soyer, M. C. Staab, L. Leal-Taixe and D. Cremers,
    Deep Depth From Focus,
    Asian Conference on Computer Vision (ACCV), December 2018.

[C4] B. Haefner, Y. Queau, T. Möllenhoff and D. Cremers,
    Fight ill-posedness with ill-posedness: Single-shot variational depth super-resolution from shading,

    Discrete-Continuous ADMM for Transductive Inference in Higher-Order MRFs,

[C6] C Domokos, FR. Schmidt and D Cremers,
    MRF Optimization with Separable Convex Prior on Partially Ordered Labels,

[C7] E. Laude, T. Wu and D. Cremers,
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    International Conference on Artificial Intelligence and Statistics (AISTATS), 2018.

[C9] R Scona, M Jaimez, YR. Petillot, M Fallon and D Cremers,
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[C23] P. Wenzel, Q. Khan, D. Cremers and L. Leal-Taixe,
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[J3] Y. Kee, Y. Lee, M. Souai, D. Cremers and J. Kim,
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[C1] M. Benning, M. Möller, R. Z. Nossek, M. Burger, D. Cremers and G. Gilboa,
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[C3] G. Kuschk, A. Bozic and D. Cremers,
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[C4] M. Jaimez, C. Kerl, J. Gonzalez-Jimenez and D. Cremers,
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[C15] D. Bender, D. Cremers and W. Koch,
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[C16] I. Chiotellis, R. Triebel, T. Windheuser and D. Cremers,
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[C19] D. Bender, F. Rouatbi, M. Schikora, D. Cremers and W. Koch,
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[J2] S. Madhogaria, P. M. Baggenstoss, M. Schikora, W. Koch and D. Cremers,
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[BC2] V. Golkov, J. M. Portegies, A. Golkov, R. Duits and D. Cremers,
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[J2] E. Strekalovskiy, A. Chambolle and D. Cremers, 
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