Journal Articles

[J1] V. Usenko, N. Demmel, D. Schubert, J. Stueckler and D. Cremers,
Visual-Inertial Mapping with Non-Linear Factor Recovery,
IEEE Robotics and Automation Letters (RA-L) 38; Int. Conference on Intelligent Robotics

Conference and Workshop Papers

[C1] D Muhle, L Koestler, N Demmel, F Bernard and D Cremers,
The Probabilistic Normal Epipolar Constraint for Frame-To-Frame Rotation
Optimization under Uncertain Feature Positions,
IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2022.

[C2] N Demmel, C Sommer, D Cremers and V Usenko,
Square Root Bundle Adjustment for Large-Scale Reconstruction,

[C3] N Demmel, D Schubert, C Sommer, D Cremers and V Usenko,
Square Root Marginalization for Sliding-Window Bundle Adjustment,
IEEE International Conference on Computer Vision (ICCV), 2021.

[C4] 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,

[C5] S Klenk, J Chui, N Demmel and D Cremers,
TUM-VIE: The TUM Stereo Visual-Inertial Event Dataset,

[C6] S Weber, N Demmel and D Cremers,
Multidirectional Conjugate Gradients for Scalable Bundle Adjustment,
German Conference on Pattern Recognition (GCPR), 2021, Oral Presentation.

[C7] C. Sommer, V. Usenko, D. Schubert, N. Demmel and D. Cremers,
Efficient Derivative Computation for Cumulative B-Splines on Lie Groups,
IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2020, Oral Pre-
sentation.

[C8] N Demmel, M Gao, E Laude, T Wu and D Cremers,
Distributed Photometric Bundle Adjustment,

[C9] D. Schubert, N. Demmel, L. von Stumberg, V. Usenko and D. Cremers,
Rolling-Shutter Modelling for Visual-Inertial Odometry,

The TUM VI Benchmark for Evaluating Visual-Inertial Odometry,
[C11] X. Gao, R. Wang, N. Demmel and D. Cremers,
**LDSO: Direct Sparse Odometry with Loop Closure,**

[C12] D. Schubert, N. Demmel, V. Usenko, J. Stueckler and D. Cremers,
**Direct Sparse Odometry With Rolling Shutter,**

[C13] V. Usenko, N. Demmel and D. Cremers,
**The Double Sphere Camera Model,**

[C14] J. Diebold, N. Demmel, C. Hazirbas, M. Möller and D. Cremers,
**Interactive Multi-label Segmentation of RGB-D Images,**
*Scale Space and Variational Methods in Computer Vision (SSVM)*, June 2015.

[C15] L Mösenlechner, N Demmel and M Beetz,
**Becoming action-aware through reasoning about logged plan execution traces,**