Journal Articles

[J1] V. Usenko, N. Demmel, D. Schubert, J. Stueckler and D. Cremers,
Visual-Inertial Mapping with Non-Linear Factor Recovery,

Omnidirectional DSO: Direct Sparse Odometry with Fisheye Cameras,

Cloud-based collaborative 3D mapping in real-time with low-cost robots,

Conference and Workshop Papers

[C1] C. Sommer, V. Usenko, D. Schubert, N. Demmel and D. Cremers,
Efficient Derivative Computation for Cumulative B-Splines on Lie Groups,

[C2] D. Schubert, N. Demmel, L. von Stumberg, V. Usenko and D. Cremers,
Rolling-Shutter Modelling for Visual-Inertial Odometry,

[C3] L. von Stumberg, V. Usenko and D. Cremers,
Direct Sparse Visual-Inertial Odometry using Dynamic Marginalization,
International Conference on Robotics and Automation (ICRA), May 2018.

The TUM VI Benchmark for Evaluating Visual-Inertial Odometry,

[C5] D. Schubert, N. Demmel, V. Usenko, J. Stueckler and D. Cremers,
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European Conference on Computer Vision (ECCV), September 2018, Oral Presentation.

[C6] V. Usenko, N. Demmel and D. Cremers,
The Double Sphere Camera Model,

From Monocular SLAM to Autonomous Drone Exploration,
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[C8] V. Usenko, L. von Stumberg, A. Pangeric and D. Cremers,
Real-Time Trajectory Replanning for MAVs using Uniform B-splines and a 3D Circular Buffer,
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[C9] V. Usenko, J. Engel, J. Stueckler and D. Cremers,
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[C10] J. Engel, V. Usenko and D. Cremers,
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[C11] V. Usenko, J. Engel, J. Stueckler and D. Cremers,
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[C12] V. Usenko, F. Seidel, Z. Marton, D. Pangeric and M. Beetz,
Furniture Classification using WWW CAD Models,

PhDThesis

[PhD1] V Usenko,
Visual-Inertial Navigation for Autonomous Vehicles,
Technische Universität München, München, 2019.