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List of Publications

Journal Articles

[J1] N. Yang, R. Wang, X. Gao and D. Cremers,
Challenges in Monocular Visual Odometry: Photometric Calibration, Motion Bias and Rolling Shutter Effect,

[J2] P. Bergmann, R. Wang and D. Cremers,
Online Photometric Calibration of Auto Exposure Video for Realtime Visual Odometry and SLAM,

Conference and Workshop Papers

[C1] M. Gladkova, R. Wang, N. Zeller and D. Cremers,
Tight Integration of Feature-based Relocalization in Monocular Direct Visual Odometry,

[C2] 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,

[C3] R. Wang, N. Yang, J. Stueckler and D. Cremers,
DirectShape: Photometric Alignment of Shape Priors for Visual Vehicle Pose and Shape Estimation,

[C4] N. Yang, L. von Stumberg, R. Wang and D. Cremers,
D3VO: Deep Depth, Deep Pose and Deep Uncertainty for Monocular Visual Odometry,

[C5] J. Du, R. Wang and D. Cremers,
DH3D: Deep Hierarchical 3D Descriptors for Robust Large-Scale 6DoF Relocalization,
European Conference on Computer Vision (ECCV), 2020, Spotlight Presentation.

[C6] L. Koestler, N. Yang, R. Wang and D. Cremers,
Learning Monocular 3D Vehicle Detection without 3D Bounding Box Labels,

4Seasons: A Cross-Season Dataset for Multi-Weather SLAM in Autonomous Driving,
X. Gao, R. Wang, N. Demmel and D. Cremers, 
**LDSO: Direct Sparse Odometry with Loop Closure,**

N. Yang, R. Wang, J. Stueckler and D. Cremers, 
**Deep Virtual Stereo Odometry: Leveraging Deep Depth Prediction for Monocular Direct Sparse Odometry,**

R. Wang, M. Schwörer and D. Cremers, 
**Stereo DSO: Large-Scale Direct Sparse Visual Odometry with Stereo Cameras,**