

Journal Articles

- [J1] T Yenamandra, A Tewari, N Yang, F Bernard, C Theobalt and D Cremers,
FIRE: Fast Inverse Rendering using Directional and Signed Distance Functions,
2022.
- [J2] P Wenzel, N Yang, R Wang, N Zeller and D Cremers,
**4Seasons: Benchmarking Visual SLAM and Long-Term Localization for Auto-
nomous Driving in Challenging Conditions**,
arXiv preprint arXiv:2301.01147, 2022.
- [J3] N. Yang, R. Wang, X. Gao and D. Cremers,
**Challenges in Monocular Visual Odometry: Photometric Calibration, Motion
Bias and Rolling Shutter Effect**,
*In IEEE Robotics and Automation Letters (RA-L) 38; Int. Conference on Intelligent Ro-
bots and Systems (IROS)*, 3: 2878-2885, Oct 2018.

Conference and Workshop Papers

- [C1] F Wimbauer, N Yang, C Rupprecht and D Cremers,
Behind the Scenes: Density Fields for Single View Reconstruction,
IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2023.
- [C2] 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.
- [C3] L Koestler, N Yang, N Zeller and D Cremers,
**TANDEM: Tracking and Dense Mapping in Real-time using Deep Multi-view
Stereo**,
Conference on Robot Learning (CoRL), 2021, **3DV'21 Best Demo Award**.
- [C4] R. Wang, N. Yang, J. Stueckler and D. Cremers,
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and Shape Estimation**,
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- [C5] N. Yang, L. von Stumberg, R. Wang and D. Cremers,
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Odometry**,
IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2020, **Oral Pre-
sentation**.
- [C6] L. Koestler, N. Yang, R. Wang and D. Cremers,
Learning Monocular 3D Vehicle Detection without 3D Bounding Box Labels,
Proceedings of the German Conference on Pattern Recognition (GCPR), 2020.
- [C7] P. Wenzel, R. Wang, N. Yang, Q. Cheng, Q. Khan, L. von Stumberg, N. Zeller and D.
Cremers,
**4Seasons: A Cross-Season Dataset for Multi-Weather SLAM in Autonomous
Driving**,
Proceedings of the German Conference on Pattern Recognition (GCPR), 2020.

- [C8] L. von Stumberg, P. Wenzel, N. Yang and D. Cremers,
LM-Reloc: Levenberg-Marquardt Based Direct Visual Relocalization,
International Conference on 3D Vision (3DV), 2020.

- [C9] E. Jung, N. Yang and D. Cremers,
Multi-Frame GAN: Image Enhancement for Stereo Visual Odometry in Low Light,
Conference on Robot Learning (CoRL), 2019, **Full Oral Presentation.**

- [C10] N. Yang, R. Wang, J. Stueckler and D. Cremers,
Deep Virtual Stereo Odometry: Leveraging Deep Depth Prediction for Monocular Direct Sparse Odometry,
European Conference on Computer Vision (ECCV), September 2018, **Oral Presentation.**