
Research Interests

I am excited about neural fields and their applications to various challenges such as geometry representation, dynamic scene reconstruction, and material modeling.

Education

- 2020–today **Ph.D. in Computer Science**,
Technical University of Munich, Computer Vision Group,
Research on neural fields, Supervisor: Prof. Dr. Daniel Cremers
- 2016–2019 **Master of Science in Mathematics in Science and Engineering**,
Technical University of Munich, Focus: Optimization, Computer Vision, Control Theory
Final Grade: 1.4 (scale 1.0 - 5.0, 1.0 best)
- 2012–2016 **Bachelor of Science in Engineering Science**,
Technical University of Munich
Final Grade: 1.9 (scale 1.0 - 5.0, 1.0 best)
- 2018 **Exchange Semester**,
University of Queensland, Australia
- 2014 **Exchange Semester**,
Swiss Federal Institute of Technology Zurich (ETH), Switzerland

Publications

- [2025, WACV] **On Neural BRDFs: A Thorough Comparison of State-of-the-Art Approaches**,
F. Hofherr, B. Haefner, D. Cremers,
IEEE/CVF Winter Conference on Applications of Computer Vision (WACV), 2025, to appear
- [2024, ECCV] **MeshFeat: Multi-Resolution Features for Neural Fields on Meshes**,
M. Mahajan, F. Hofherr*, D. Cremers*,
European Conference on Computer Vision (ECCV), 2024, [[paper](#)]
- [2023, WACV] **Neural Implicit Representations for Physical Parameter Inference from a Single Video**,
F. Hofherr, L. Koestler, F. Bernard, D. Cremers,
IEEE/CVF Winter Conference on Applications of Computer Vision (WACV), 2023, [[paper](#)]
- [2018, SIAM] **Lagrangian Transport through Surfaces in Compressible Flows**,
F. Hofherr, D. Karrasch,
SIAM Journal on Applied Dynamical Systems, 2018, [[paper](#)]

Experience

- 2016–2019 **Working Student**, VEMCON MACHINE CONTROL, MUNICH
Kinematics modeling, system identification and parameter estimation
- 09/2018–10/2018 **Student Teaching Assistant**, CHAIR FOR SCIENTIFIC COMPUTING, TUM
Tutor for the lecture „Introduction to Programming “
- 05/2015–09/2015 **Student Assistant**, CHAIR FOR CONTROL THEORY, TUM
Modeling and simulation of a pneumatic line

Skills

- Programming **Python**, Matlab, C/C++
- Frameworks PyTorch, NumPy, Git
- Languages German (native), English (professional proficiency), French (basic - B1)