



LUDWIG-  
MAXIMILIANS-  
UNIVERSITÄT  
MÜNCHEN

BIOZENTRUM DER LMU  
FAKULTÄT FÜR BIOLOGIE  
ORGANISMISCHE NEUROBIOLOGIE



## PhD position, Vision circuits lab (Laura Busse), Faculty of Biology, LMU Munich

A PhD position is available in Laura Busse's group at the Division of Neuroscience at the Faculty of Biology, LMU Munich. We study the neural circuits of visual processing and perception in awake, behaving mice, where we combine electrophysiological recordings using Neuropixels probes with genetic tools for circuit manipulation. Our aim is to contribute to the understanding of sensory mechanisms of visual information processing and their dependence on visually guided behavior. The Faculty of Biology at the LMU Munich together with the Graduate School of Systemic Neurosciences (GSN) offer an outstanding environment for a successful PhD in systems neuroscience, with ample opportunities for collaboration with both experimentalists and computational neuroscientists, both within the department as well as with the neighboring Max-Planck-Institute for Biological Intelligence. The LMU Munich ranks among the top 10 universities in Europe. Munich, located in the south of Germany, is regularly ranked among the world's top cities for quality of living.

The fully funded PhD position is part of an interdisciplinary team-science collaboration within the DFG-funded Collaborative Research Center *Robust vision: Inference Principles and neural mechanisms* (SFB 1233). In the project, we seek to investigate "Context-adapted representations in the early visual system", combining Neuropixels recordings in thalamus and primary visual cortex, closed-loop virtual reality, eye and face tracking and the generation of naturalistic movies. The project will heavily draw from building "digital twins" of the early visual system with video and internal state input, and will be performed in close collaboration with the labs of [Philipp Berens](#) and [Katrin Franke](#) at the University of Tübingen and [Fabian Sinz](#) at the University of Göttingen. More information about the lab can be found at: <https://visioncircuitslab.org>.

The project requires strong experimental skills, experience in programming, and the ability to work in a distributed team. Complementary PhD positions based primarily in Tübingen and Göttingen will closely collaborate on the experiments and the development of the digital twins. The position is available now, and applications will be considered until the position is filled.

Interested candidates are welcome to establish contact via email to [busse@bio.lmu.de](mailto:busse@bio.lmu.de). Applications should include a CV, a statement of research interests, a cover letter with the expected date of availability, and names and contact information of at least two references. Applications will ideally also go through the LMU Graduate School of Systemic Neuroscience (<https://www.gsn.uni-muenchen.de/index.html>, deadline 17. February 2025).