Fully-funded postdoctoral and PhD positions in computational neuroscience

The lab of **Stefano Panzeri** is seeking candidates for fully funded postdoctoral and PhD positions in computational neuroscience at the **University Medical Center Hamburg-Eppendorf (UKE)**. The successful candidates will conduct research in the **computational laboratory (Institute for Neural Information Processing) at UKE:** https://www.uke.de/english/departments-institutes/institutes/department-of-excellence-for-neural-information-processing/index.html

The lab will investigate, by developing and using advanced machine learning methods and neural network models, how populations of neurons (and of glia) in the brain encode information and use it to produce behaviors.

The group offers a wide range of interdisciplinary expertise in computational neuroscience. It also offers a high-quality and well-funded research environment including a network of international experimental collaborators such as Prof. Christopher Harvey at Harvard Medical School, Prof. Tommaso Fellin at IIT Italy, and Prof. Mriganka Sur at MIT.

The group seeks candidates with a solid computational background and a keen interest in neuroscience. They must be highly motivated and creative individuals who want to work in a dynamic, multi-disciplinary research environment and be willing to interact with both experimental and theoretical neuroscientists. The job is available starting immediately and applications will be considered as soon as they are received and until the positions are filled. Funding is available for several years (with a minimum commitment of two years expected) for postdoc candidates and for the full duration of the PhD for PhD candidates.

Interested applicants are strongly encouraged to email Stefano Panzeri (s.panzeri@uke.de or stefano.panzeri@gmail.com) as soon as possible, to inform him of the interest for the position and initiate a discussion about research projects. Interested candidates should attach a CV when inquiring by email.

For recent example publications from the lab, see:

- Dupret D et al (2025) Neural population activity for memory: properties, computations, and codes. Neuron: in press
- Safaai H et al (2025) Specialized structure of neural population codes in parietal cortex outputs. Nature Neuroscience 28, 2550–2560
- Lorenz GM et al (2025) MINT: a toolbox for the analysis of multivariate neural information coding and transmission. PLOS Computational Biology 21 (4), e1012934
- Kuan AT et al (2024). Synaptic wiring motifs in posterior parietal cortex support decision-making. Nature 627, 367–373
- Celotto M, et al (2023) An information-theoretic quantification of the content of communication between brain regions. NeurIPS
- Panzeri S, et al (2022) The structures and functions of correlations in neural population codes. Nature Reviews Neuroscience 23:551-567
- Koren V., Panzeri S (2022) Biologically plausible solutions for spiking networks with efficient coding. NeurIPS
- Curreli S, et al (2022) Complementary encoding of spatial information in hippocampal astrocytes. PLoS Biology 20(3): e3001530.
- Valente, M. et al (2021), Correlations enhance the behavioral readout of neural population activity in association cortex. Nature Neuroscience, 24, 975–986