JÜLICH
Forschungszentrum

Conducting research for a changing society: This is what drives us at Forschungszentrum Jülich. As a member of the Helmholtz Association, we aim to tackle the grand societal challenges of our time and conduct research into the possibilities of a digitized society, a climate-friendly energy system, and a resource-efficient economy. Work together with around 7,400 employees in one of Europe's biggest research centres and help us to shape change!

The brain is a highly complex organ and ubiquitous in our daily lives. However, little is understood about it or its functions. Undertaking the study of this organ is a challenging and fascinating endeavour and can spawn new technologies and alternative methods of treatment of diseases. Research at the Institute of Computational and Systems Neuroscience encompasses theoretical, data-analytic and simulation approaches to develop multi-scale models of the brain. It is our firm belief that progress in understanding a complex system like the brain can only be achieved through this multi-faceted approach.

Join our team to the next possible date as

PhD student in the field of Computational Neuroscience

Your Job:
At the Institute of Advanced Simulation (IAS-6) a PhD position is available in the field of Computational Neuroscience to investigate cross-area interactions in the visuo-motor pathway of non-human primates during a visually guided motor task. The data are provided by our experimental partners at INT, CNRS, Marseille. Simultaneous electrophysiological recordings by multiple Utah electrode arrays implanted in V1, V2, V4, 7a, DP and M1 will be studied driven by predictions from theory and network modeling to gain a mechanistic understanding of cross-area interaction signatures. The project is embedded in the interdisciplinary work program of the IAS-6 (www.csn.fz-juelich.de) with experts from network modeling, analytical theory, data analytics, AI and neuromorphic computing.

Your Profile:
Applicants should have a background in computational neuroscience, physics, mathematics, or a related field. Solid skills of math and programming (preferably Python) are required. Experience with data analyses, modelling, analysis of complex systems, simulation, and software development are beneficial. Applicants should have a keen interest in neuroscience, interdisciplinary projects, and collaborative work.

Please send your application (incl. CV and two reference contacts) to Prof. Dr. Sonja Grün (s.gruen@fz-juelich.de) or Dr. David Dahmen (d.dahmen@fz-juelich.de)