

Open PhD/PD Positions in Experimental Condensed Physics



University of
Zurich^{UZH}

We are looking for one PhD and one Postdoctoral collaborator whose contributions will enable research from condensed matter physics to biology and that depend on raster acquisition imaging. The project will focus on accelerating the measurement throughput as well as artifact reduction through software and hardware enhancements and includes their application for the study of electron-electron and electron-phonon correlations in quantum materials. The two researchers will join our team at the Department of Physics of the University of Zurich, offering great visibility, research autonomy, access to an excellent mechanical and electrical workshop, and work with state-of-the-art facilities that is topped off with a competitive salary.

PhD position details (4 years, CHF ~50'000 p.a.):

The PhD student with interest in coding/math/CNN (python/MATLAB or related) and who also likes to occasionally tinker with electronics will use and develop speed-enhancements for raster acquisition imaging based on compressive sensing, CNNs, or data reduction schemes. English proficiency is needed because they will deploy, collect experience, respond to, and adapt their work to user feedback coming from researchers of the host group and users of scanning probe microscopes, confocal microscopes, and scanning electron microscopes, working at the Center for Microscopy and Image Analysis of the University of Zurich.

Interested students with MSc degree in Physics/Mathematics/Biology/Chemistry or related field should contact Fabian Natterer (fabian.natterer@physik.uzh.ch) or directly send their application package consisting of CV, transcripts, contact information of 2-3 references, as well as a bullet-point list of 3-5 research interests and passions. We perform initial interviews via video-call. The position is open until filled.

Postdoc position details (2 years, possible extension, CHF ~95'000 p.a.):

The postdoctoral collaborator has a proven track record in the use of raster data acquisition systems (AFM, STM, confocal microscope, scanning electron microscopy, or related systems) for their own research. They should have experienced or have an understanding of the limitations of incumbent raster data acquisition systems. A coding background using python/MATLAB or experience in electronics is desired. The postdoctoral collaborator will be the first to develop/encounter, test, and provide feedback to our speed-enhancements and artifact removal schemes in their pursuit of their research interest, carried out either at the host group using STM or at the Center for Microscopy and Image Analysis of the University of Zurich.

Interested postdocs with PhD degree in Physics/Mathematics/Biology/Chemistry or related field should contact Fabian Natterer (fabian.natterer@physik.uzh.ch) or directly send their application package consisting of CV, transcripts, contact information of 3-4 references, as well as a bullet-point list of 5-10 research interests and passions. We perform initial interviews via video-call. The position is open until filled.

