

PhD Thesis in cryo-EM and Diffractive Imaging

The EPFL ranks among the world's top scientific universities. We are located in Lausanne in Switzerland, a beautiful, vibrant and highly international city on the shores of scenic Lake Geneva, situated within an Alpine setting in the heart of Europe. French is the main language spoken in the city of Lausanne, and English is the main language at the EPFL and in our laboratory. The position comes with a competitive salary. EPFL is committed to being an equal opportunity employer.

The successful candidate will join a vibrant, collaborative, international, and diverse research team with interdisciplinary expertise in biology, physics, computer science and engineering. The focus of research activity at the LBEM is centered around neurodegeneration and method development in cryo-EM. The LBEM is a newly established research lab at the Institute of Physics at the EPFL, we enjoy unique state-of-the-art instrumentation. For this research project, we use a 300kV Titan Krios with probe corrector and high-speed direct electron detector, which is an ideal setup to develop and study 4D STEM, ptychography and related methods.

Your mission:

We are looking for a researcher to participate in the development of diffractive imaging technologies. A background in Physics, Materials Sciences, Electrical Engineering or Computing would be helpful, but if your background is biology or chemistry and you are open to play with complex hardware and novel optics approaches, then you are also most welcome to apply.

For more information on this topic, please see:

<https://www.lbem.ch/research/cryo-em-development/4d-stem/>

Your profile:

Candidates should have experience in electron microscopy with a background of physics, electrical engineering, materials sciences, life sciences or related disciplines. The project will involve high-resolution cryo-EM data collection and developing methods to control and optimize the beam geometry and data collection algorithms. Good proficiency in English is required.

How to apply:

Please send your application with PDF documents including a Cover letter, a CV and the contact information of 3 references to henning.stahlberg@epfl.ch.

For the PhD fellowship:

The student will need to enroll in the Physics program of the EPFL doctoral school. The employment extends to a total of 4 years, assuming a successful evaluation after the first year of PhD. Applicants are expected to hold a Master degree in physics or related disciplines by the start of employment.

Start date:

The position is available from September 1st, 2023 but the starting date is flexible.

Contact:

For questions or additional information, please contact Prof. Henning Stahlberg at henning.stahlberg@epfl.ch.