The Paul Scherrer Institute PSI is the largest research institute for natural and engineering sciences within Switzerland. We perform cutting-edge research in the fields of future technologies, energy and climate, health innovation and fundamentals of nature. By performing fundamental and applied research, we work on sustainable solutions for major challenges facing society, science and economy. PSI is committed to the training of future generations. Therefore, about one quarter of our staff are post-docs, post-graduates or apprentices. Altogether, PSI employs 2300 people.

For the Nanodiffraction group we are looking for a

PhD Student in low-energy electron holography

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Your tasks

You will participate in developing a novel imaging technique, low-energy electron holography, which will be applied for imaging 2D crystals (graphene, TMDs, etc.) as well as nano-scaled non-crystalline samples, including single proteins and other macromolecules. The project consists of the following tasks:

- Sample preparation
- Recording low-energy electron holograms
- Numerical reconstruction of the sample structure from the recorded holograms
- Simulation of low-energy electron holograms of various samples
- Presenting the results at conferences and writing papers

Your profile

- Recent master's degree in physics or engineering
- Hands-on experience in experimental physics, experience in building a device is preferred
- Good knowledge of solid-state physics, coherent optics, and theoretical physics (quantum mechanics, QED) is required
- Programming skills (MATLAB, Python)
- Experimental experience in electron microscopy and/or light optical imaging is a plus

We offer

Our institution is based on an interdisciplinary, innovative and dynamic collaboration. You will profit from a systematic training on the job, in addition to personal development possibilities and our pronounced vocational training culture. If you wish to optimally combine work and family life or other personal interests, we are able to support you with our modern employment conditions and the on-site infrastructure.

For further information, please contact PD Dr Tatiana Latychevskaia, phone +41 56 310 46 79.

Please submit your application online by **31 October 2026** (including a CV, contact details for at least two referees, transcripts of your academic degrees (Bachelor's and Master's), and a motivation letter explaining why you are applying for this position and how you fulfill the criteria listed above) for the position as a PhD Student (Index-Nr. 2411-28853).

Paul Scherrer Institute, Human Resources Management, Mariusz Prus, 5232 Villigen PSI, Switzerland