

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

12.09.2025 • Doctoral • 2411-04 • 100% 

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### Your tasks

- Participating in developing a novel imaging technique, low-energy electron holography, which will be applied for atomic-resolution imaging of 2D crystals, such as graphene, and nanocrystalline samples such as nano-scale objects
- Designing and building a coherent low-energy electron microscope
- Sample preparation and recording holograms
- Numerical reconstruction of the sample structure
- Presenting the results at conferences, writing papers

### Your profile

- Master's degree in physics or engineering
- Good knowledge of solid-state physics, coherent optics, and theoretical physics (quantum mechanics, QED) is required
- Experience in experimental physics
- Programming skills (Matlab, Python) and experimental experience in electron microscopy and light optical imaging are 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 **15. October 2025** (including addresses of referees) for the position as a PhD Student (Index-Nr.2411-04).

Paul Scherrer Institute, Human Resources Management, Pascale Bärtschi, 5232 Villigen PSI, Switzerland