The Paul Scherrer Institute PSI is the largest research centre for natural and engineering sciences within Switzerland. We perform cutting-edge research in the fields of matter and materials, energy and environment and human health. 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 2100 people.

The Laboratory for Mesoscopic Systems, based at the PSI, is a joint laboratory between the ETH Zurich and the PSI. One scientific focus of the group is to study artificial spin systems consisting of arrays of magnetically coupled nanomagnets. The nanomagnets are arranged on periodic and aperiodic lattices, and display several fascinating phenomena including emergent magnetic monopoles, phase transitions, chirality and frustration. To expand our current research on artificial spin systems we are looking for a

PhD Student

Magnetic Correlations in Artificial Spin Systems

Your Tasks

- Conduct outstanding research in the field of artificial spin systems
- Fabricate magnetic nanostructures with electron beam lithography
- Study magnetic correlations in artificial spin systems with synchrotron based imaging and scattering techniques
- Perform micromagnetic and Monte Carlo simulations to support the experimental results

Your Profile

Excellent qualifications with a master degree in physics, material science or related topic, and enjoy practical work. Knowledge of magnetism, x-ray methods, nanofabrication and programming skills for data analysis is beneficial. As an enthusiastic researcher you like team work and have a flexible approach to working between different laboratories.

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 Dr Gavin Macauley, email gavin.macauley@psi.ch, or Dr Valerio Scagnoli, email valerio.scagnoli@psi.ch.

Please submit your application online (including list of publications and addresses of referees) for the position as a PhD student (index no. 3701-02):
https://www.psi.ch/en/pa/job-opportunities/45311-phd-student

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