

The Paul Scherrer Institute is with 1400 employees the largest research centre for the natural and engineering sciences in Switzerland and a worldwide leading user laboratory.

Its research activities are concentrated on the main topics structure of matter, energy and environmental research as well as human health.

The group Material Science and Simulations (<http://mss.web.psi.ch/>) part of NUM/ASQ performs research in the structural and mechanical properties of metals, alloys and composites using in-situ testing facilities at the neutron Spallation Source (SINQ) and at the Swiss Light Source (SLS), meanwhile exploiting synergies with computational modelling.

For the development of a computational tool for the interpretation of diffraction data we are looking for a postdoctoral fellow in computational materials science. The main objective of this research is to develop new computational approaches for the interpretation of diffraction data obtained by powder diffraction and polychromatic Laue diffraction for the study of modern engineering materials subjected to strong nonlinear strain fields.

The emphasis lies on a bottom up approach for calculation of diffraction patterns from simulated microstructural configurations with the aim to improve the understanding of the influence of dislocations on the diffraction profile.

For more information please contact Prof Helena Van Swygenhoven-Moens (email: [helena.vanswygenhoven@psi.ch](mailto:helena.vanswygenhoven@psi.ch), phone: +41-56-310-2931)

or have a look here: <http://www.psi.ch/pa/offenstellen/0070-1>