Within the **Condensed Matter Theory Group** at the **Paul Scherrer Institute (PSI)** in Villigen Switzerland, we are looking for a

2 PhD students

in

"Structure and excitations in complex, disordered quantum systems"

Project

The PhD projects explore the intriguing physics arising from the interplay of disorder, strong interactions and quantum fluctuations. In particular, you will study quantum localization and quantum glasses and their various interconnections. A central aim is to elucidate the intricate spatial structure and nature of the order and excitations in complex quantum systems, such as in quantum magnets and spin glasses, close to the metal-insulator transition in semiconductors, as well as in disordered superfluids.

The theoretical PhD thesis will be carried out in partial collaboration with experimental groups at PSI. You will be involved in the Quantum technology collaboration at PSI.

Your profile

You hold a Master degree in theoretical physics and have particular interest in quantum physics, condensed matter theory/quantum statistical physics and possibly quantum information. As an enthusiastic researcher you like to work on technically and conceptually challenging problems.

You will be registered as a PhD Student at the University of Zürich, while your main working place will be at the Paul Scherrer Institute in Villigen. Your PhD thesis will be supervised by **Dr. Markus Müller** (senior scientist CMT/LTC, PSI) and co-supervised by **Prof. Titus Neupert** (Theoretical Condensed Matter Physics, University of Zürich).

We offer

The Paul Scherrer Institute 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.

Applications will be considered until the position is filled. For expression of interest or further information please **contact Dr. Markus Müller**, email: Markus.Mueller@psi.ch.