Nordita, the Nordic Institute for Theoretical Physics, invites applications for postdoctoral positions in theoretical condensed matter physics in conjunction with the ERC Synergy project HERO on Hidden, Entangled and Resonating Orders

Position 1: Dynamic Quantum Matter. Quantum materials have stimulated a host of new ideas based on unconventional correlated, entangled, hidden and topological orders. Correlations, entanglement, novel dynamic orders determine the properties of quantum materials and naturally reveal themselves in the time domain. We seek a qualified PD in this area with particular focus on dynamic superconducting states, odd-frequency superconductivity, dynamic multiferroicity and Dirac materials.

Position 2: Machine Learning and Data Informatics. Recent growth of computational power and high demand for prediction of materials with target properties have led to a new way of doing materials research referred to as materials informatics. This approach places the main effort on performing high-throughput computing combined with data mining. Applications of this data-driven approach are wide-ranging and cover the search for various quantum materials with special electrical, optical and magnetic properties. Successful candidate(s) are expected to bridge the analytic and ab initio calculations in the framework of density functional theory within the field of quantum materials, including van der Waals and Dirac materials, topological materials, superconductivity, photovoltaics and multiferroics. The project is closely tied to the development of the open-access organic materials database OMDB which is being build up at Nordita.

Postdoctoral positions are appointed primarily for purposes of research. Applicants are expected to hold a Swedish doctoral degree or an equivalent degree from another country, not older than three years at the deadline. The position involves full-time employment for full-time employment for one year with the possibility of extension for one or two years depending on circumstances. Start date is 14 February 2020 or as per agreement.

The deadline for applications is 15 December, 2019

Only online applications will be accepted. The online application and a full description of the position and the requirements is at:

academicjobsonline.org/ajo/jobs/15103

For further details on the project please contact Prof. Alexander V. Balatsky (Nordita) avb@nordita.org