As a University of Excellence, Universität Hamburg is one of the strongest research universities in Germany. As a flagship university in the greater Hamburg region, it nurtures innovative, cooperative contacts to partners within and outside academia. It also provides and promotes sustainable education, knowledge, and knowledge exchange locally, nationally, and internationally.

Pending approval of external funding the MIN faculty, Department of Physics, Institute for Nanostructure and Solid State Physics (INF) invites applications for a

**RESEARCH ASSOCIATE FOR THE PROJECT “CONTROLLED DYNAMICS IN CRAFTED SPIN ARRAYS COUPLED TO ITINERANT ELECTRON BATHS” WITHIN THE SFB925 "LIGHT INDUCED DYNAMICS AND CONTROL OF CORRELATED QUANTUM SYSTEMS” - SALARY LEVEL 13 TV-L -**

The position in accordance with Section 28 subsection 3 of the Hamburg higher education act (Hamburgisches Hochschulgesetz, HmbHG) commences on 01.03.2021.

This is a fixed-term contract in accordance with Section 2 of the academic fixed-term labor contract act (Wissenschaftszeitvertragsgesetz, WissZeitVG). The term is fixed until 30.06.2023. The position calls for 75% of standard work hours per week**.

**RESPONSIBILITIES:**
Duties include academic services in the project named above. Research associates may also pursue independent research and further academic qualifications.

**SPECIFIC DUTIES:**
The aim of the project is to experimentally investigate how the spin dynamics of artificial assemblies of magnetic atoms is governed by their interactions with the electrons in metallic, superconducting, or topological insulator substrates. The assemblies shall be prepared by the method of scanning tunneling microscope based manipulation of transition metal atoms adsorbed to the surface of single crystals of the different material classes. The dynamics shall be investigated by means of the following techniques, which are based on spin-resolved scanning tunneling spectroscopy: the telegraph noise measurement, electrical pump probe schemes and the local electron spin resonance technique.

* Full-time positions currently comprise 39 hours per week.
The sample preparations and measurements will be conducted in ultra-high vacuum in a very-low temperature scanning tunneling microscope facility, which enables the application of strong magnetic fields.

The job includes the maintenance of the used low-temperature scanning tunneling microscope, sample preparation, experimental data measurement and analysis, presentation of the results on workshops of the SFB925 and on international conferences, and finally their publication in scientific journals.

REQUIREMENTS:

A university degree in a relevant field. M.Sc. Physik. The applicant should have a strong record in the methods of spin-resolved and inelastic scanning tunneling spectroscopy as well as a strong experience with scanning probe tip-induced atom manipulation of artificial assemblies of transition metal atoms on surfaces. Furthermore, he/she should have knowledge in the physics of itinerant electron-mediated interactions. Finally, the applicant should have experience in the programming using LabVIEW.

The Free and Hanseatic City of Hamburg promotes equal opportunity. As women/man are currently underrepresented in this job category at Universität Hamburg according to the evaluation conducted under the Hamburg act on gender equality (Hamburgisches Gleichstellungsgesetz, HambGleiG), we encourage women/man to apply for this position. Equally qualified and suitable female/male applicants will receive preference.

Qualified disabled candidates or applicants with equivalent status receive preference in the application process.

For further information, please contact Dr. Jens Wiebe, Tel. 42838-3282, Email: jwiebe@physnet.uni-hamburg.de or consult our website at www.nanoscience.de.

Applications should include a cover letter, a tabular curriculum vitae, and copies of degree certificate(s). Please send applications by 31.12.2020 to: Prof. Dr. Roland Wiesendanger, Jungiusstrasse 11A, Tel.: 42838-5244, Email: wiesendanger@physnet.uni-hamburg.de.

Please do not submit original documents as we are not able to return them. Any documents submitted will be destroyed after the application process has concluded.