Universität Hamburg
DER FORSCHUNG | DER LEHRE | DER BILDUNG

1919 2019 100 JAHRE WISSENSWERFT Universität Hamburg

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.

The Faculty of Mathematics, Informatics and Natural Sciences / CUI: Advanced Imaging of Matter invites applications for a

RESEARCH ASSOCIATE FOR THE PROJECT "CLUSTER OF EXCELLENCE 'ADVANCED IMAGING OF MATTER' - EXPERIMENTAL REALISATION OF STIMULATED ELECTRONIC X-RAY RAMAN SCATTERING IN MOLECULES "

- SALARY LEVEL 13 TV-L -

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

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 for a period of 2 years. The position calls for 39 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 successful candidate will prepare and perform experiments of stimulated electronic x-ray Raman scattering in molecular samples in the gas and liquid phase at x-ray free-electron laser sources. Impulsive stimulated electronic Raman scattering is an inelastic scattering process that produces coherent electronic wave packets. The candidate will perform proof-of-principle experiments of impulsive stimulated Raman scattering, by monitoring the x-ray emission spectrum. In a second step, the candidate will develop the experimental concept of quantum-beat pump-probe Auger-electron spectroscopy. In this experiment, the pump process prepares an electronic wave packet by impulsive stimulated Raman spectroscopy that is subsequently probed by a time-delayed x-ray pulse via resonant Auger-spectroscopy. The candidate is expected to work in close collaboration with the involved theory group in order to develop the best concept of the

experiments along with theoretical predictions. The successful candidate will be hosted commonly by the group of N. Rohringer (DESY, UHH) and the group of M. Meyer (European XFEL).

REQUIREMENTS:

A university degree in a relevant subject plus doctorate. The candiate should have a strong background in experimental physics (atomic, molecular and optical physics, solid-state physics). Furthermore, the successful candidate has a track reckord in x-ray (or XUV) emission spectroscopy and/or high-resolution electron spectroscopy. Experience in performing experiments at storage-ring based x-ray sources or free-electron laser sources would be advantageous. Furthermore, the candidate should have strong data analysis skills and good programming skills (C++ or Python).

The University aims to increase the number of women in research and teaching and explicitly encourages women to apply. Equally qualified female applicants will receive preference in accordance with the Hamburg act on gender equality (Hamburgisches Gleichstellungsgesetz, HmbGleiG).

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

For further information, please contact Prof. Nina Rohringer (nina.rohringer@desy.de) or consult our website at http://www.desy.de/about_desy/lead_scientists/nina_rohringer/index_eng.html.

Applications should include a cover letter, a tabular curriculum vitae, and copies of degree certificate(s). Please send applications by **31.10.2019** to: tuxs-office@desy.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.