Technische Universität Braunschweig is looking for a

**PhD student in theoretical atomic physics (TV-L E13, 75%)**

The position will be assigned to the Institute of Mathematical Physics at Technische Universität Braunschweig in collaboration with the working group “Fundamental physics for metrology” at Physikalisch-Technische Bundesanstalt. It will be funded by the DFG research training group “NanoMet” (GrK 1952/2) which is focused on the emerging topic of metrology of nanosystems.

**Job description:** (1) Theoretical studies of the interaction of twisted (vortex) light with individual trapped ions and atomic ensembles. (2) Development of computer codes for the evaluation of atomic (ionic) dynamics induced by twisted light. (3) Publication of results in peer-review journals and at international conferences.

**Job qualifications:** The main criterion is excellence and dedication combined with good communication skills and ability for independent research. It is required that the candidate has successfully completed university studies (Master degree) in the field of physics or a comparable field of study. In addition, experience in one or more of the following fields is expected: (1) theoretical atomic physics, (2) theory of light-matter interaction and/or quantum electrodynamics, (3) computational methods. We expect good proficiency in English as well as excellent scientific writing skills. We look for an individual with international exposure with an open mind living up to the requirements of a research environment with high diversity. We expect commitment and self-motivation.

**Our offer:** An excellent cutting-edge research environment, aiming at enabling excellent scientific careers. Remuneration will be in line with the current German collective pay agreement up to TV-L E13, 75%. The employment will initially be limited to two years with possible extension. TU Braunschweig is an equal opportunity employer committed to excellence through diversity. We explicitly encourage women to apply and preference will be given to disabled applicants with equivalent qualifications. Disabled persons are required to include a copy of proof concerning their degree of disability.

Application costs cannot be reimbursed. Please understand that applications that are not considered can only be returned against a self-addressed and sufficiently stamped envelope.

Personal data will be saved for performing the application procedure.

**How to apply and contact:** Please send a complete written application (in English) consisting of a cover letter, full CV, academic certificates and transcripts (Bachelor, Master), and other supporting certificates by e-mail subject to: Prof. Dr. Andrey Surzhykov (E-mail: a.surzhykov@tu-braunschweig.de)

Closing date for applications: 15.05.2021.