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PhD Position in Experimental Condensed Matter Physics

The Department of Physics at TU Dortmund University invites applications for a research assistant position as PhD student in experimental condensed matter physics with a focus on terahertz dynamics of quantum materials. The initial employment for three years can start at the earliest possible date. According to the public tariff regulations, the salary is based on the tariff group E13 TV-L with 50% of the regular work time during the first year and 75% from the second year.

Project:

The main goal of this PhD project is to investigate and understand the non-equilibrium and equilibrium properties of quantum materials (e.g. superconductors, quantum magnets, Dirac matter) driven by strong-field terahertz pulses, in a tunable external condition such as low temperatures and high magnetic fields. The project will be realized by setting up a time-resolved terahertz spectroscopy combining with an optical cryostat. The experiments will be carried out mainly in house and also complementarily at the large scale user facilities. Implementation of teaching in the amount of max 3 SWS.

Requirements:

- an excellent master or equivalent academic degree of physics, material physics, chemistry, optics, or engineer.
- practical scientific experience in optics or low temperature experiments is preferable.
- very good oral and written English skills are required.
- the German language is helpful but not mandatory.

Responsibilities:

The tasks of the PhD student include setting up the time resolved terahertz spectroscopy and the low-temperature apparatus, performing the experiments, analysing the data, and disseminating the results (e.g. by conference presentations and peer-reviewed journal publications).

We explicitly note that applications of all sexes are welcome. Applications from women are favored complying with legal regulation. We also underline that applications of severely disabled persons are welcome

Applications enclosing curriculum vitae, latest grades and degrees, a motivation letter, and contact details of two references should be sent until **25.05.2022** under reference number **w40-22**to:

Prof. Dr. Zhe Wang
Technische Universität Dortmund
Fakultät Physik
44227 Dortmund

For further information, please do not hesitate to contact:
Prof. Dr. Zhe Wang
Tel. 0231/755 – 3518; E-Mail: zhe.wang@tu-dortmund.de