Technische Universität Dresden - Faculty of Physics, Institute of Theoretical Physics, Chair of Network Dynamics affiliated with the Center for Advancing Electronics Dresden (cfaed)

TECHNISCHE UNIVERSITÄT DRESDEN

TUD Dresden University of Technology, as a University of Excellence, is one of the leading and most dynamic research institutions in the country. For TUD diversity is an essential feature and a quality criterion of an excellent university. Accordingly, we welcome all applicants who would like to commit themselves, their achievements and productivity to the success of the whole institution.

Research Associate (m/f/x) on basic research on the nonlinear dynamics and statistical physics of complex systems and networks

At the Faculty of Physics, Institute of Theoretical Physics, the Chair of Network Dynamics (http://networkdynamics.info, Prof. Marc Timme) affiliated with the Center for Advancing Electronics Dresden (cfaed) offers a position as Research Associate (m/f/x) on basic research on the nonlinear dynamics and statistical physics of complex systems and networks (subject to personal qualification employees are remunerated according to salary group E 13 TV-L) starting July 1, 2025 or later. The position is limited to three years. The period of employment is governed by the Fixed Term Research Contracts Act Wissenschaftszeitvertragsgesetz - WissZeitVG). The position offers the chance to obtain further academic qualification (usually PhD).

City: Dresden; Starting date (earliest): 01/07/25; Duration: limited to three years; Remuneration: subject to personal qualification employees are remunerated according to salary group E 13 TV-L; Reference number: ND 2/25; Closing date: 30/04/25

Working field

mathematical, theoretical and applied research on collective dynamical phenomena of complex systems and networks with a focus on strongly externally driven systems; application to fields in physics, engineering and biology, developing a computational toolbox for predicting distributed responses and tipping points in dynamical systems employing computer algebra and advanced numerical techniques; supporting Chair in all matters, including the support of grant proposals, and establishing and executing collaborative research.

Requirements

outstanding university degree in Theoretical Physics or closely related fields; experience in mathematical modeling, statistical physics, nonlinear dynamics, and stochastic processes; advanced programming skills, ideally also with computer algebra software; teaching introductory material of applied mathematics (for physics students), statistical physics, networks, complex systems and their applications; excellent command of English language; high self-motivation and independent, target- and solution-driven work

attitude; ideally experience in collaborative research.

Application

TUD strives to employ more women in academia and research. We therefore expressly encourage women to apply. The University is a certified family-friendly university. We welcome applications from candidates with disabilities. If multiple candidates prove to be equally qualified, those with disabilities or with equivalent status pursuant to the German Social Code IX (SGB IX) will receive priority for employment.

Please submit your application (in English only) including motivation letter, CV with publication list, names and contact details of two references, copy of degree certificates, transcripts of grades (i.e. the official list of coursework including your grades) and proof of English language skills by April 30, 2025 (stamped arrival date of the university central mail service or the time stamp on the email server of TUD applies), preferably via the TUD SecureMail Portal https://securemail.tu-dresden.de by sending it as a single pdf file quoting the reference number “ND 2/25” in the subject header to manuela.merkel@tu-dresden.de or to: TU Dresden, Professur für Netzwerk-Dynamik, Herrn Prof. Marc Timme, Helmholtzstr. 10, 01069 Dresden, Germany. Please submit copies only, as your application will not be returned to you. Expenses incurred in attending interviews cannot be reimbursed.

Reference to data protection: Your data protection rights, the purpose for which your data will be processed, as well as further information about data protection is available to you on the website: https://tu-dresden.de/karriere/datenschutzhinweis.

More information at https://stellenticket.de/193514/LUH/
Offer visible until 30/04/25