The Chair of Network Dynamics headed by Prof. Marc Timme at the Institute of Theoretical Physics affiliated with the Center for Advancing Electronics Dresden (cfaed) offers a fixed-term position as

Research Associate / PhD Student
(Subject to personal qualification employees are remunerated according to salary group E 13 TV-L)

Research area: Theoretical physics for designing **collective nonlinear dynamics of networks under constraints**

**Terms:** 50% of the fulltime weekly hours, the position is a 3-year appointment starting from **April 1, 2021 or later.** 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 (e.g. PhD).

The Chair of Network Dynamics strives to advance our conceptual understanding of collective dynamic phenomena in networks across fields. Besides fundamental topics in Theoretical Physics and Dynamical Systems we address questions about biological and bio-inspired computing, self-organized solutions for engineering as well as systemic questions on collective phenomena regarding energy and mobility as well as systemic sustainability (**sustainability**).

**Requirements**
- outstanding university degree (Master's level) in Theoretical Physics
- experience in several of the theory fields: Statistical Physics, Nonlinear Dynamics, Network Dynamics, Data Analytics
- experience in Inverse Problems for Network Dynamics and in publishing in international peer-reviewed scientific journals of Statistical Physics or Nonlinear Dynamics Theory
- very good command of English; willingness to learn German, experience is a plus
- strong ability of theory building from first principles' physics, mathematical analysis and computational data analytics
- the ability to effectively work in collaborative research efforts and to write and present concisely
- an independent, inter- and multidisciplinary thinking
- outstanding interpersonal and communication skills
- target- and solution driven work attitude, personal commitment, reliability, flexibility, team player
- interest in complex dynamical systems, network dynamics design.

Applications from women are particularly welcome. The same applies to people with disabilities.

**What we offer**
You will join a team of enthusiastic international scientists who creatively pursue research inspired by the cluster’s innovative and cross-disciplinary approach. Your activities will be fostered by the cfaed philosophy to promote young researchers, which includes: access to state of the art research of leading academic institutes, promotion of gender equality and family-friendly work environment.
Application Procedure
Your application (in English only) should include: concise motivation letter (max. 2 pages), CV with publication list, names and contact details of at least two references, copy of degree certificate and proof of English language skills. Complete applications should be submitted preferably via the TU Dresden SecureMail Portal https://securemail.tu-dresden.de by sending it as a single pdf document quoting the reference number PhD-ND 0221 in the subject header to recruiting.cfaed@tu-dresden.de or alternatively by mail to TU Dresden, cfaed, Professur für Netzwerk-Dynamik, Herrn Prof. Dr. Marc Timme, Helmholtzstr. 10, 01069 Dresden, Germany. The closing date for applications is February 16, 2021 (stamped arrival date of the university central mail service applies). 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