

## Job Opening for Doctorate Position (75% / TV-L E13)

### Mathematical Modelling, Simulation and Optimization Using the Example of Gas Networks

#### Subproject B09 in TRR-154 ([trr154.fau.de](http://trr154.fau.de))

We offer a position for a doctoral candidate (75% / TV-L E13) to work on mathematical equilibrium problems motivated by the analysis of energy markets.

Applicants should have a qualified degree in mathematics, operations research or mathematical economics with fundamental knowledge in optimization, mathematical modelling and potentially but not necessarily also game theory. Proficiency in oral and written English is required. Depending on the specific interest and background of the candidate a PhD degree in mathematics or economics can be pursued.

The candidate will be part of the research team of the Transregio-TRR-154 ([www.trr154.fau.de](http://www.trr154.fau.de)) having access to a highly interesting research environment such as a specific graduate program, regular research meetings and specific funding for guests and conference attendances. Once recruited, you will perform research in a highly relevant research area in applied mathematics that is centered around the “turnaround in energy policy”, in particular in the context of gas networks. The main aim of the TRR-154 is to provide certified novel answers to mathematical challenges arising in this context, based on mathematical modeling, game theory, simulation, and optimization.

The advertised position will contribute to subproject B09 (project leaders: G. Zöttl and A. Schwarz) which is focusing on mathematical equilibrium problems in gas markets. Beyond the close collaboration within the TRR-154 the position can also be linked to activities in the context of Energy Campus Nürnberg ([www.encn.de/markt](http://www.encn.de/markt)) with strong expertise regarding the mathematical modeling of energy markets (Electricity, Gas, Hydrogen) and regarding the development of sustainable mobility concepts.

Our research group offers a lively research environment, financial support for attending conferences, and an intensive supervision within a large and interactive team. Salary corresponds to the German pay scale (75% / TV-L E13). In order to increase the proportion of female staff members, applications from female scientists are particularly encouraged. Preference will be given to disabled persons with the same qualification.

For further information about the position, please contact Gregor Zöttl ([gregor.zoettl@fau.de](mailto:gregor.zoettl@fau.de)) or Alexandra Schwarz ([alexandra.schwartz@tu-darmstadt.de](mailto:alexandra.schwartz@tu-darmstadt.de)). Please submit your electronic application as a **single** pdf file including the standard materials (vita and diplomas) to [wiso-sekretariat-energie@fau.de](mailto:wiso-sekretariat-energie@fau.de). Please refer to “**PHD position TRR154**” in the reference line of the email. The deadline for all application materials is **15 February 2020**, but applications will be processed starting January 15.