

Ph.D. and Postdoc positions in Applied Mathematics Friedrich-Alexander-Universität Erlangen-Nürnberg, Erlangen, Germany

Application deadline: January 10th, 2021

The Group

The [Chair of Applied Analysis – Alexander von Humboldt Professorship](#) at the Department of Mathematics of the Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU), in Erlangen (Germany), led by Prof. Dr. Enrique Zuazua, is looking for outstanding candidates to fill several

Ph.D. and Postdoctoral positions

In the broad area of Applied Mathematics, the Chair develops and applies methods of Analysis, Computational Mathematics and Data Sciences to model, understand and control the dynamics of various phenomena arising in the interphase of Mathematics with Engineering, Physics, Biology and Social Sciences.

We welcome applications by young and highly motivated scientists to contribute to this exciting joint Alexander von Humboldt-FAU effort. Possible research projects include but are not limited to:

- Analysis of Partial Differential Equations (PDE).
- The interplay between Data Sciences, numerics of PDE and Control Systems.
- Control of diffusion models arising in Biology and Social Sciences.
- Modelling and control of multi-agent systems.
- Hyperbolic models arising in traffic flow and energy transport.
- Waves in networks and Markov chains.
- Fractional PDE.
- Optimal design in Material Sciences.
- Micro-macro limit processes.
- The interplay between discrete and continuous modelling in design and control.
- The emergence of turnpike phenomena in long-time horizons.
- Inversion and parameter identification.
- Recommendation systems.
- Development of new computation tools and software.

We look for excellent candidates with expertise in the areas of applied mathematics, PDE analysis, control theory, numerical analysis, data sciences and computational mathematics who enjoy interdisciplinary work.

The Chair contributes to the development of a new Center of Research at FAU, in the broad area of "Mathematics of Data", conceived as a highly visible interdisciplinary research site, an incubator for future collaborative research grants and a turntable for the key research priorities of FAU. The recruited candidates will have the added opportunity to participate in this challenging endeavour.

How to apply

Applications, including cover/motivation letter, curriculum vitae, list of publications, statement of research and two or three names of experts for reference should be submitted via e-mail as a single pdf file to secretary-aa@math.fau.de before **January 10th, 2021**.

Any inquiries about the positions should be sent to Prof. Enrique Zuazua (positions-aa@math.fau.de). The positions should be filled as soon as possible.

FAU is a member of "The Family in Higher Education Institutions" best practice club and also aims to increase the number of women in scientific positions. Female candidates are therefore particularly encouraged to apply. In case of equal qualifications, candidates with disabilities will take precedence.

For more detailed information about the Chair, please visit [Chair of Applied Analysis – Alexander von Humboldt Professorship](#)