

# Job offer

## Doctoral Researcher

The Institute of Applied Mechanics offers 2 full-time fully funded PhD positions within the CRC project Computational Electric Machine Laboratory for 4 years, 40 hours/week, starting as soon as possible.

We are looking for motivated and dedicated candidates interested in modeling and/or numerical simulation of challenging engineering problems. We are a motivated team with the ambition to conduct innovative interdisciplinary research. This particular project C03 of the CRC focuses on the development of an advanced isogeometric framework for the analysis of electric drives.

### YOUR TASK

The doctoral candidate will be part of the Collaborative Research Centre (CRC) Computational Electric Machine Laboratory. This first German-Austrian Transregio CRC, research groups from TU Darmstadt, JKU Linz, and TU Graz, want to achieve a paradigm shift in the design and development of electrical machines. The candidate's contribution shall lead to a doctorate and focus on the following topics:

- Addressing generic obstacles of the integration of design and simulation
- Discretisation for simulation and optimisation with accurate and CAD-compatible spline models
- Developing a flexible geometry handling including topological changes

### MORE INFORMATION

<https://www.tugraz.at/go/crc-marussig>

### REQUIREMENTS

Completed master's degree in the field of engineering, computer science, software development, applied mathematics, or similar.

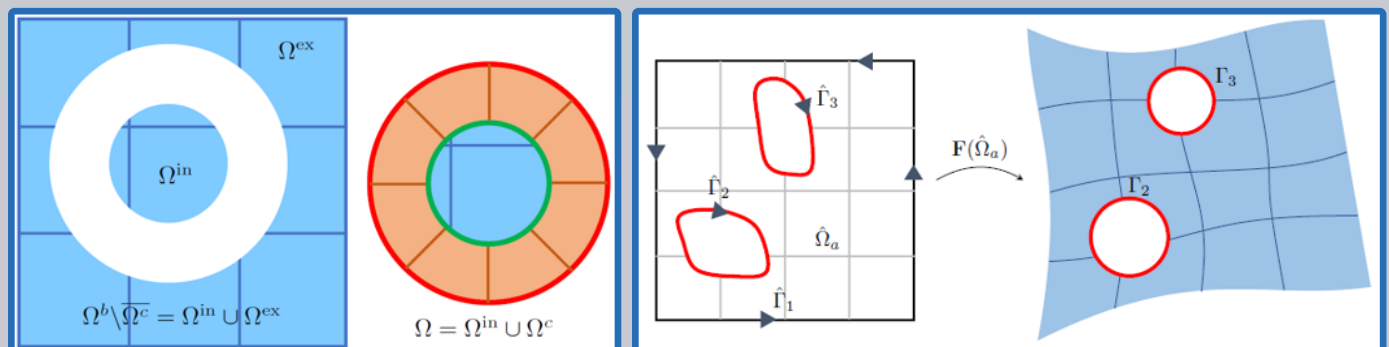
### DESIRED QUALIFICATIONS

Very good knowledge of numerical methods and computer-aided geometric design, good programming skills (e.g., C++ or Matlab) and excellent English language skills.

### SALARY

Job Grading "B1" according to the collective bargaining agreement of universities; monthly minimum salary € 3.058,60 gross (14x per year); previous experience will be taken into account on the basis of the collective bargaining agreement.

Graz University of Technology supports affirmative action. Therefore, women are particularly encouraged to apply.



### APPLICATION

Please send your application documents, CV and a motivation letter (half a page) via email to: Institute of Applied Mechanics, Graz University of Technology, Technikerstraße 4/II, 8010 Graz, Austria Ass.Prof. Dr. Benjamin Marussig [marussig@tugraz.at](mailto:marussig@tugraz.at)

Screening begins at April 25th, 2022