

# 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.

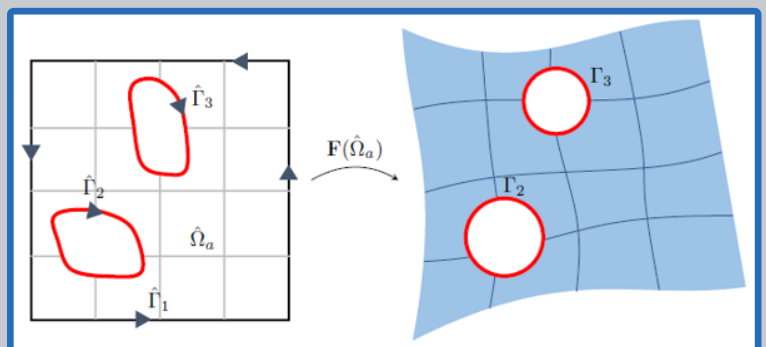
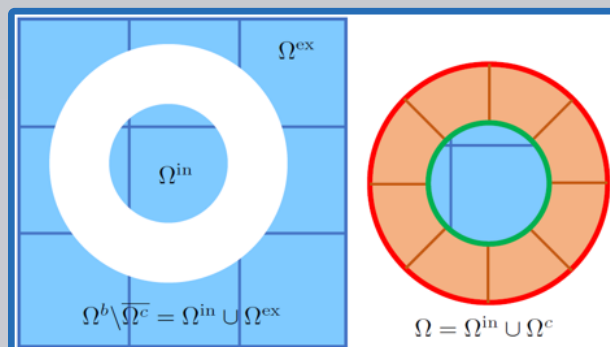
### DESIRED QUALIFICATIONS

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**