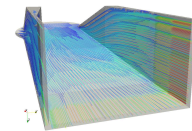
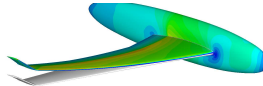
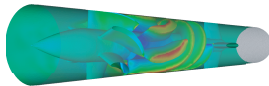


Doctoral Position

in Numerical Methods in Mechanical Engineering

Simulation techniques have become an important instrument for the development, design and quality assurance of engineering components. Since its foundation in 2004, our institute conducts active research at the interface between mechanical engineering and applied mathematics. Our main focus is the development and implementation of numerical methods. Currently, we are searching for new doctoral candidates to complement our group in one of the following areas:

- Biomedical engineering
 - Modeling of blood flow and blood damage
 - Shape optimization of biomedical devices
 - Fluid-structure interaction in biomedical devices
- Aerospace engineering
 - Static and dynamic aeroelasticity
 - Optimal control and uncertainty quantification
 - Vortex-induced vibrations
- Production technology
 - Modeling of plastics melts in injection moulding, welding, or extrusion
 - Modeling of high-pressure die casting
 - Shape optimization for mould-based manufacturing processes
 - Heat transport in manufacturing processes



Your profile: Requirement for this position is a diploma or master's degree in CES, engineering, applied mathematics, physics or a similar subject with a superior academic record. Practical programming experience in Fortran or C as well as with parallelization (MPI or OpenMP) are of advantage. Familiarity with UNIX operating system would be ideal. We expect you to contribute to general tasks at the institute, such as teaching and advising master or project theses. In particular, the teaching will involve the course *Mechanics I and II* in the CES study program.

Our offer: The candidate will be employed as a regular employee and must meet required personal qualifications. This is a full-time position with salary according to civil service pay scale TV-L E 13 (www.cats.rwth-aachen.de/jobs/bat). The expected appointment period is up to five years, with an initial appointment for one year. Applications are being reviewed now.

Contact : Marek Behr · Tel +49 241 80 99900 · office@cats.rwth-aachen.de
Starting date: as soon as possible