Student assistant in the area of Shape Optimization (m/f/d)

Job description

Surfaces often play an important role in the optimization of process engineering. In this project numerical methods are to be implemented, which allow to improve shapes in process engineering processes. Initially, shape optimization methods for highly viscous flows will be implemented in the finite element framework NGSolve. The regular working time is set at 40 hours per month, but is negotiable. Remuneration is according to the usual regulations for student assistants at the Georg-August-University of Göttingen. The position is initially limited to six months, but can be extended in case of mutual interest.

Responsibilities:

- Implementation of shape optimization algorithms
- Development and documentation of a software package for shape optimization
- Testing of the developed algorithms on test geometries
- Testing of the developed algorithms on real application-relevant geometries

What we offer:

- Working with the modern finite element software NGSolve (in python, C++).
- Software development
- Insights into research on computational fluid dynamics / shape optimization
- Development assignments for real world applications
- Cooperation in a dedicated, friendly work team
- Compensation according to the usual regulations for student assistants at the University of Göttingen
- The possibility of an extension

Requirement profile

- Study of computer science/mathematics/physics (preferably with B.Sc.)
- Basic knowledge in simulation of partial differential equations/optimization
- Programming experience and fun in programming/software development
- Structured working

If you are interested, please send your application or inquiries by e-mail to lehrenfeld@math.uni-goettingen.de, Prof. Dr. Christoph Lehrenfeld.