



Universität der Bundeswehr München

Institut für **Mathematik und
Computergestützte Simulation**

der Bundeswehr
Universität München

Doctoral Position at the Institute for Mathematics and Computational Simulation (Prof. Popp) as

Research Assistant (m/f/d)

(Salary according to pay grade E13 TVöD)

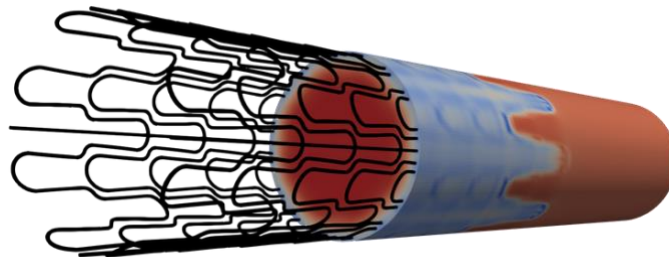
In the following research areas:

**Computational Science and Engineering | Finite Element Methods
Structural Mechanics | Medical Device Modeling
Deep Reinforcement Learning | Spline-Based Design**

Within the project

AutoStent—An Autonomous Design Assistant for Aneurysm Repair

reinforcement learning methods are integrated with modern modeling techniques in structural mechanics to develop an autonomous design assistant for patient-specific medical implants (stents and stent grafts). A key element of this project is a flexible, FEM-based simulation tool for modeling the implants using spline geometry generation. The German Research Foundation (DFG) and the Austrian Science Fund (FWF) funded the project. The research associate will work independently and in close collaboration with the project leaders and institute head, contributing to the realization and further development of the research vision. The project is carried out in close collaboration with the Institute for Lightweight Design and Structural Biomechanics at TU Wien (Prof. Dr.-Ing. Stefanie Elgeti).



The full-time position (100% E13 TVöD) is initially limited to three years. An extension is possible with the successful acquisition of additional research funding and is actively pursued by the chair. The position is explicitly geared toward qualification for a doctorate (Dr.-Ing.), and this goal is actively supported.

About the Institute



<https://www.unibw.de/imcs-en>

All details about the research project



<https://www.unibw.de/imcs-en/job-opportunities/autostent.pdf>

Application

Applications will be reviewed as they are received until the position is filled. Please send your complete application documents (PDF file including cover letter, CV, and copies of certificates) **as soon as possible** via email to:

Prof. Dr.-Ing. Alexander Popp

imcs@unibw.de

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