



**Weierstrass Institute for Applied Analysis
and Stochastics**
Leibniz Institute in Forschungsverbund Berlin e. V.



The Weierstrass Institute for Applied Analysis and Stochastics (WIAS) is an institute of the Forschungsverbund Berlin e.V. (FVB). The FVB comprises seven non-university research institutes in Berlin which are funded by the federal and state governments. The research institutes belong to the Leibniz Association.

WIAS invites applications for a

PhD student position (f/m/d)

(Ref. 24/18)

in the Research Group

“Nonlinear Optimization and Inverse Problems”

(Head: Prof. Dr. D. Hömberg) to be filled **at the earliest possible date**.

As part of the doctoral thesis, mathematical optimal control problems in connection with powder bed-based processes for metallic 3D printing are to be investigated. The work will be carried out in co-operation with the 3D printing laboratory of the Technical University of Berlin.

We are looking for: candidates with a master’s degree in mathematics or a closely related field with a strong background in at least two of the following fields: Mathematical modelling, non-linear optimisation/optimal control, analysis of partial differential equations, numerical simulation of partial differential equations. Previous experience in the analytical or numerical treatment of direct or inverse problems in thermomechanics is an advantage.

What we offer:

- Close mentorship: the PhD student will receive responsible and careful mentorship. We emphasize the promotion of a healthy mentor-mentee relationship.
- WIAS Berlin is a premier research institution known for its strength in partial differential equations, mathematical modeling, nonlinear optimization, and applied mathematics in general.
- A certified (Audit berufundfamilie) family-friendly work environment.
- Berlin is one of the most culture-rich and diverse international cities in the world. It offers endless opportunities to enjoy life outside work, while being very affordable compared to other major cities. Neither the job nor living in Berlin requires German language (although WIAS offers free German courses). We highly welcome international applications. Scientifically, Berlin offers a rich landscape with numerous opportunities for research, as well as job prospects in academia and industry.

Please direct scientific queries to Prof. Dietmar Hömberg (dietmar.hoemberg@wias-berlin.de). The appointment is limited to three years. The reduced work schedule is 29.25 hours per week, and the salary is according to the German TVoED Bund scale.

The Weierstrass Institute is an equal opportunity employer. We explicitly encourage female researchers to apply for the offered position. Among equally qualified applicants, disabled candidates will be given preference.

Please upload your complete application documents (motivation letter, detailed CV, certificates, copy of the master thesis, etc.) via our online [job-application facility](#) until **October 31, 2024** using the button “[Apply online](#)”.

We are looking forward to your application!



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