



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. 23/09)

in the Research Group

“Nonsmooth Variational Problems and Operator Equations“

(Head: Prof. Dr. Michael Hintermüller) devoted to the topic **“Algorithmical Quantum Computing“**, starting **as soon as possible**.

The project will be concerned with the development and mathematical analysis of algorithms for near-term Quantum Computing in NISQ environments. The focus lies on Variational Quantum Algorithms where beneficial interactions with classical computations should be explored. A central goal is to devise efficient hybrid optimization and circuit generation approaches, for instance by using MPS and other tensor representations.

The applicants are expected to have a strong background in Mathematics or Physics and should be familiar with some of the topics optimization, numerical analysis, high-dimensional approximation, modern machine learning techniques. Moreover, the applicants are expected to be experienced with at least one of the common quantum computing and machine learning frameworks.

What we offer:

- WIAS Berlin is a premier research institution known for its strength in mathematical modeling, optimization, dynamical systems, and applied mathematics in general.
- Payment according to the collective agreement for the public service (TVöD Bund) including the usual social benefits (30 vacation days in a 5-day week, company pension plan); subsidy for the company ticket for public transport
- Mobile working
- A certified (Audit berufundfamilie) family-friendly work environment.
- Berlin offers endless opportunities to enjoy life outside work. 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.

Technical queries should be directed to Dr. Martin Eigel (martin.eigel@wias-berlin.de).

The working hours are 29,25 hours per week and the position is initially limited to three years.

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 complete application documents including cover letter, curriculum vitae, photocopies of certificates, and transcripts as soon as possible via our online [job-application facility](#) by **May 28, 2023** using the button [“Apply online”](#).



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



We are looking forward to your application!