

Open PhD Position in Mathematical Physics

In the Group of Soeren Petrat, Constructor University Bremen

June 2024

Description

A PhD position is available in the research group Mathematical Physics of Prof. Petrat at Constructor University Bremen. The topic is from the area of rigorous derivations of effective equations in quantum mechanics. The concrete topic is open and can be discussed. Possibilities include the derivation of mean-field dynamics for bosons or fermions, the derivation of effective equations for singular scaling limits, semiclassical limits, and higher order expansions for the dynamics and spectrum of bosons and fermions and their applications.

Starting Date

The starting date is flexible, ideally around September 1, 2024, but should be before December 1, 2024.

Duration and Contract

This is a 3-year position, and necessary extensions might be possible if funding is available. The position comes as a stipend of 1.365 EUR per month. Additional employment as teaching assistant is possible (and encouraged for at least some of the time) and comes with extra pay.

How to Apply

Please send a CV, a transcript, and a very brief cover letter by email to spetrat@constructor.university.

Deadline

Applications are welcome until the position is filled. Applications that are received before July 15, 2024 are guaranteed to receive consideration.

About the Research Group

The research group currently consists of Prof. Petrat, and the two postdocs Shahnaz Farhat and Denis P eric. We are part of the joint French-German ANR-DFG collaboration project on “Effective Approximation and Dynamics of Many-Body Quantum Systems”: <http://effective-quantum.org>. For more information on the research and teaching activities, see <http://math.constructor.university/petrat/>

About Constructor University

Constructor University (formerly known as Jacobs University) is a small private international university in Bremen (Germany). We currently have around 1800 students from over 120 nations studying on our college campus in the north of Bremen. The campus has residential colleges, cafeterias, sports fields, and is very spacious and green. Opportunities for on-campus housing exist, and accommodation in Bremen is affordable.