

Ph.D. Position in Mathematical Physics

at Constructor University Bremen

Description

A Ph.D. position is available in the Analysis and Mathematical Physics research group of Prof. Nikolai Leopold at Constructor University Bremen. The research topic will focus on the derivation of effective evolution equations from quantum dynamics. The specific research direction is flexible and will be determined based on mutual interest. Possibilities include the derivation of effective evolution equations for particles in interaction with the quantized or classical electromagnetic field, derivation of kinetic equations from quantum dynamics, adiabatic theorems or effective equations for quantum systems with singular interactions.

Starting Date

Ideally around September 1, 2025, but flexible.

Duration and Funding

The contract is for 3 years with possible extensions if funding is available. The position comes as a stipend of 1.365 EUR per month. Teaching assistant positions are available and encouraged, providing additional pay.

Application Process

To apply, please send the following documents to nleopold@constructor.university:

- Cover letter (briefly outlining your research interests and motivation),
- CV (including contact details of two references),
- Grade transcripts.

Applications will be reviewed on a rolling basis until the position is filled. The selection will be primarily based on excellent research potential in mathematical physics. Applications must hold a Master's degree in mathematics, physics or related fields. Applications from equally qualified female candidates or candidates with disabilities will be given preference.

About Constructor University and the Research Group

Constructor University (formerly Jacobs University) is an international private university in Bremen, Germany, with around 1800 students from over 120 countries. 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. The research group was founded in December 2024 and currently consists of Prof. Nikolai Leopold. It is closely connected to the research group of Prof. Sören Petrat which currently consists of two post-doctoral researchers and one Ph.D. student. For more details on the research activities, visit <https://constructor.university/faculty-member/nikolai-leopold>.