Job Announcement

The University of Potsdam was founded in 1991 and has firmly established itself within the scientific landscape and developed into an outstanding economic factor and growth engine for the region. The university excels in acquiring third-party funds, has received multiple teaching awards, has a very service-oriented administration, and has been honored several times for its family-friendly culture. About 20,000 students and 3,000 employees study and work at three campuses – Am Neuen Palais, Griebnitzsee and Golm – at one of Germany's most scenic institutions of higher education.

The **DFG-funded Collaborative Research Centre (CRC) 1294 "Data Assimilation – The Seamless Integration of Data and Models"**, hosted at the **University of Potsdam** and jointly operated with its partner institutions **HU Berlin, TU Berlin, GFZ Potsdam, TU Ilmenau, University of Rostock, and HMU Potsdam**, invites applications for the following position limited to **four years**, to be filled **as soon as possible**:

Academic Staff Member (f/m/d)
Doctoral Position
ID no. 367/2026

The field of work:
The assimilation of time-dependent data into complex evolution models gives rise to some of today's most compelling mathematical and computational challenges. These challenges form the core of CRC 1294. Data assimilation is a rapidly growing field situated at the intersection of mathematics, statistics, machine learning, and a wide range of application areas in the natural and life sciences.

The overall aim of the CRC is to advance the foundations of data assimilation by developing robust and transparent theoretical foundations, establishing principled computational methodologies, and applying these methodologies to emerging domains such as geosciences, neuroscience, pharmacology, and biophysics. Through this integrative approach, we seek to build a deeper theoretical understanding while simultaneously supporting progress in a rapidly evolving research landscape.

The CRC 1294 provides a supportive and stimulating research environment, including a broad and welcoming interdisciplinary community and its own graduate school. Members benefit from excellent research infrastructure, opportunities for conference participation and international exchange, with flexible formats where possible, as well as funding to invite and collaborate with international experts. For further information see www.sfb1294.de.

The position. We are seeking applicants for one doctoral position (75%, TV-L E13) within project B07 "Inferring the collective dynamics of active particles by data assimilation" in the research area *Statistical Physics of Active Matter* and *Bayesian Inference* within CRC 1294.

The collective dynamics of so-called active particles, which self-propel their motion, is a paradigm of nonequilibrium pattern formation. This project brings together tools from stochastic modelling, statistical analysis, and data assimilation to better link experimental observations and mathematical descriptions of active matter. The ideal candidate will conduct interdisciplinary research in this field, with a particular focus on inferring coarse-grained, nonlinear descriptions of interacting active particle systems.

The position is based at the Institute of Physics and Astronomy of the University of Potsdam, specifically at the Biophysics Chair of Prof. Dr. Carsten Beta. At the Chair of Biological Physics, an international team investigates current questions in cell motility and pattern formation in microscale biological systems using microfabrication, advanced optical microscopy, micromanipulation as well as computational data analysis, statistical inference and modelling. The group is closely connected to the university through interdisciplinary teaching and collaborative research, and moreover has several national and international research collaborations.

General Requirements: We are looking for a highly motivated candidate who can work effectively in an interdisciplinary research environment and enjoys collaborative research. For the position, close communication and collaboration with researchers from the (applied) mathematical sciences are essential. The candidate must be proficient in written and spoken English. The available position is described in detail below.

The Scope of Your Responsibilities:
- Conduct scientific research within the project under the supervision of Prof. Dr. Carsten Beta and Dr. Robert Großmann
- Development and implementation of algorithms for statistical learning and data-driven modeling, with a particular focus on active matter theory
- Publish research findings in peer-reviewed journals
- Participation and presentation of scientific results at international conferences
- Collaboration with interdisciplinary research groups within the CRC 1294

Your Qualifications:
- Master's degree in physics, applied mathematics or equivalent
- Preferable experience in statistical physics or nonlinear dynamics
- Good programming skills in Python, Julia, C, Matlab or similar
- Experience in one of the fields of Bayesian inference, parameter estimation, machine learning or Monte-Carlo simulation

We are also looking for the following competences:
- Knowledge on modeling of stochastic processes is desired
- Hands-on experience with data analysis and data management
- Familiarity with biophysics is advantageous

Further academic qualification (doctorate) is possible. At least one third of your working hours will be reserved for your own academic research.

The successful candidate will work 30 hours per week (75 %). The position is classified within remuneration group 13 of the collective wage agreement among the German federal states ("Tarifvertrag für den öffentlichen Dienst der Länder" – TV-L). The fixed term of employment is in accordance with Section 2 subsection 1 of the German Act on Fixed-Term Employment Contracts in Science and Academia (Wissenschaftszeitvertragsgesetz or WissZeitVG).

What We Offer:
As a university, we combine the strong potential for development of a teaching and research institution with the attractive working conditions of the public sector. The University of Potsdam is a reliable employer that supports its employees with a variety of offers and benefits:
- Make the most of the various continuing education and networking opportunities offered by the University of Potsdam to refine your subject-specific and interdisciplinary competencies for professional as well as personal growth.
- All campuses have good transport connections. You can receive a monthly subsidy for the public transport job ticket and use our campus bicycles.

- Benefit from a company pension scheme, a special annual payment, and capital-forming benefits.
- Take advantage of the various offers from our Occupational Health Management unit as well as the Academic Sports Center.
- To improve employees' work-life balance, the University of Potsdam offers family-friendly flexible working hours and a defined share of remote working hours (e.g. work from home).
- You have 30 vacation days per year (with a 5-day week) and are also exempt from work on December 24 and 31.

You can find more information about working at the University of Potsdam at https://www.uni-potsdam.de/en/arbeiten-an-der-up/employer-up/overview

For further information about this position, please contact Dr. Robert Großmann by e-mail: robert.grossmann.ii@uni-potsdam.de.

Your Application:
Please send us your application including the **ID no.** 367/2026 by November 15, 2026 preferably by email to robert.grossmann.ii@uni-potsdam.de and should include (1) a statement of research interests and motivation, (2) a full CV, (3) the names and email addresses of at least two referees as well as their reference letters, (4) academic transcripts, (5) a link to an electronic copy of your Master's/Diploma thesis, and (6) a list of publications, talks, or presentations (if any are available) in a single PDF file.

If you completed higher education qualifications outside the EU, please submit a German translation and the assessment of the Central Office for Foreign Education (Zentralstelle für ausländisches Bildungswesen – ZAB) . Alternatively, please send us a PDF file from the database for the recognition and assessment of foreign higher education certificates (ANABIN).

Candidate evaluation will begin immediately after the application deadline on **November 15, 2026** with an anticipated project start on **March 01, 2027.** Interviews will take place within three weeks after the application deadline and can also be conducted online via Zoom.

The University of Potsdam / The SFB 1294 values the diversity of its community and pursues the goals of equal opportunity regardless of gender, nationality, ethnic and social origin, religion/belief, disability, age, and sexual orientation and identity. Applications from abroad and from persons with a migration background are expressly encouraged. The university strives for a balanced gender ratio in all employment groups; in areas where women are underrepresented, women are given preference in case of equal suitability (Section 7 paragraph 4 of the Brandenburg Higher Education Act). People with disabilities are given preferential consideration in case of equal suitability. In aptitude tests and selection interviews, individual compensation measures for disadvantages are granted, taking the specific disability into consideration. If a person with a disability would like to make use of individual compensation measures, please state this in the application letter. For further information see www.sfb1294.de or contact robert.grossmann.ii@uni-potsdam.de directly.

Potsdam, October 15, 2026