



Faculty of Mathematics and Natural Sciences

PhD student in biological physics & systems biology (f/m/x)

Institute for Biological Physics

We are one of the largest and oldest universities in Europe and one of the most important employers in our region. Our broad range of subjects, the dynamic development of our main research areas and our central location in Cologne make us attractive for students and researchers from around the world. We offer a wide range of career opportunities in science, technology, and administration.

The Bollenbach Group at the Institute of Biological Physics investigates interactions in microbial systems, especially in the context of antibiotic resistance and polymicrobial consortia. The group combines methods from molecular and microbiology with concepts and techniques from physics.

YOUR TASKS

- » Application and improvement of high-throughput techniques for quantitative measurement of ecological interactions between bacteria of different species.
- » Develop theoretical models of bacterial growth and population dynamics in microbial consortia.
- » Testing predictions of these models in polymicrobial infection datasets (together with collaboration partners).
- » Computational analysis of experimental data, in particular using methods of statistical network analysis.

YOUR PROFILE

- » MSc degree in biological physics, quantitative biology or a related field.
- » Strong interest in interdisciplinary research between physics and biology.
- » Prior knowledge of programming, statistics or microbiology is an advantage but not essential.
- » Strong communication skills are essential.
- » Applicants should be highly motivated and independent.

WE OFFER

- » An interactive and supportive research environment
- » A diverse working environment with equal opportunities
- » Support in balancing work and family life
- » Flexible working time models
- » Extensive advanced training opportunities
- » Occupational health management offers

The University of Cologne is committed to equal opportunities and diversity. Women are especially encouraged to apply and will be considered preferentially in accordance with the Gender Equality Act of the State of North Rhine-Westphalia (LGG NRW). We also expressly welcome applications from people with disabilities / special needs or of equal status.

The position is available from 1 July 2023 on a part-time basis (65%). The position is to be filled for a fixed term of 2 years. An extension is possible. If the applicant meets the relevant wage requirements and personal qualifications, the salary is based on remuneration group 13 TV-L of the pay scale for the German public sector.

Please send your application (without a photo) with proof of the required qualifications to <https://jobportal.uni-koeln.de> with the reference number Wiss2303-24.

The application deadline is 15 May 2023.

If you have any questions, please contact
Professor Dr Tobias Bollenbach (t.bollenbach@uni-koeln.de)