



The [Max Planck Institute for Multidisciplinary Sciences](#) in Göttingen, Germany, is a leading international research institute of exceptional scientific breadth. With more than 40 research groups and about 1,000 employees from over 50 nations, it is the largest institute of the [Max-Planck-Society](#).

The research group for [Mathematical bioPhysics](#) (Dr. Aljaz Godec) is inviting applications for

PhD Student Positions (f/m/d)
- in Mathematical biophysics -

for the following projects:

- **Signatures of hidden degrees of freedom in time-ordering of projected states (Theory)**
- **Mapping manifestations of hidden dimensions and currents in projected observables (Computation & Theory)**
- **Inferring hidden dynamics from single-molecule experiments (Computational inference, “complex-data” analysis)**

Please indicate in your application which of the above listed projects is most intriguing for you.

Our research

We are developing and applying methods of mathematical physics and probability theory to study non-equilibrium phenomena in soft matter and biophysics, i.e. “ $k_B T$ physics”. We aim in particular at a trajectory - (or sample path) based description of statistical mechanics and thermodynamics with emphasis on the manifestations of hidden degrees of freedom in low-dimensional projections that are inherent to experimental observations. The projects are part of the ERC Consolidator Grant “HiddenBio” devoted to understanding and inferring hidden states and currents in biological systems.

Your profile

The successful candidate has a strong background and experience in statistical or mathematical physics, theory of stochastic processes, and/or stochastic thermodynamics in combination with a strong interest in interdisciplinary research and collaboration with experimental groups. You hold (or expect to complete soon) a Masters or equivalent degree in any of these or a related field.

Our offer

- Competitive research in an inspiring, world-class environment
- Professional training, networking and career-development opportunities
- A wide range of offers to help you balance work and family life: on-campus kindergarten places including vacation care, parent-child offices, etc.
- On-site health management offers and free in-house language courses

The group language is English, so no German language skills are required – but it is a great opportunity for you to learn German! The historic city of Göttingen, located in the heart of Germany, offers great outdoors and cultural opportunities, a vibrant student scene, and an impressive scientific heritage.



Position details

You will have the opportunity to participate as PhD candidate in one of several available programs, initially with three years funding, in collaboration with the University of Göttingen. Payment and benefits are based on the German Public Service Payscale (TVöD Bund) guidelines. The positions are available from May 1 2023 onward.

The Max Planck Society is committed to increasing the number of individuals with disabilities in its workforce and therefore encourages applications from such qualified individuals. The Max Planck Society strives for gender and diversity equality. We welcome applications from all backgrounds.

Application

Applications will be reviewed on a rolling basis until the positions are filled. Please submit your application package including cover letter (explaining background and motivation), CV incl. contact details of two referees, copy of Bachelor and Masters certificate, and publication list, preferably via E-Mail as a single PDF file to

ausschreibung12-23@mpinat.mpg.de

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Information pursuant to Article 13 DS-GVO on the collection and processing of personal data during the application process can be found on our website below the respective job advertisement.