



PhD position (f/m/d) in Computational Neuroscience/NeuroAI

We are inviting applications for a collaborative PhD position based at Dresden University of Technology (TU Dresden).

Who we are:

The overarching goal of our group is to uncover the computational, biological, and ecological principles of adaptive decision-making across species. To achieve this goal, we integrate computational methods with analyses of behavioral and neural data to investigate how the decision strategies of different species arise from underlying neural circuits and relate to the spatiotemporal structure of their environment as well as their embodied constraints. You can learn more about us [here](#).

What you will work on:

The projects in our group focus on studying adaptive decisions along three fundamental dimensions: how humans and animals (1) track and adapt to a constantly changing external environment, (2) build and update an internal “world model” to predict future outcomes, and (3) accommodate their embodied constraints (e.g., motor and homeostatic constraints). To answer these questions, we integrate computational methods from reinforcement learning, dynamical systems, and artificial intelligence (AI), with analyses of behavioral and neural data from different species (worms, flies, fish, rodents, and non-human primates) performing decision-making tasks. By combining computational and experimental insights across species, we aim to uncover the shared and species-specific mechanisms governing adaptive decision-making in naturalistic settings. Depending on your interests, your expertise, and other ongoing projects in the team, we can define projects along these different dimensions. You can read more about our research [here](#).

Who we are looking for:

The ideal candidate has the following qualifications (N = necessary, D = desired, P = plus):

- (N) A strong academic background (Master's or equivalent) in neuroscience, cognitive science, computer science, physics, or other related fields. Students currently completing their Master's degree are welcome to apply, provided the degree is completed prior to the PhD start date.
- (N) Strong analytical and critical thinking skills.
- (N) Proficient programming skills (ideally in Python).
- (N) Excellent communication skills in English.
- (N) A collaborative mindset and the ability to work responsibly both within a team and independently.
- (D) Experience with computational modeling (such as reinforcement learning, dynamical systems, or recurrent neural networks).
- (D) Experience with neural and/or behavioral data analysis.



What we offer:

The position is based at the Dresden University of Technology with an initial three-year contract (E13, 65%), while interacting closely with our other research hub at the Max Planck Institute for Biological Cybernetics in Tübingen. Given the interdisciplinary nature of the project, you can potentially also work closely with our extensive network of collaborators, including Peter Dayan, Jennifer Li, and Drew Robson in Tübingen, as well as international collaborators at the Allen Institute for Neural Dynamics, MIT, University of Wisconsin–Madison, and the Champalimaud Foundation. Furthermore, you also have the opportunity to apply for our structured PhD programs at the [International Max Planck Research School on Cognitive NeuroImaging](#) and [Dresden International Graduate School for Interdisciplinary Life Sciences](#) (**please note that each program has its own deadline**; also see below). These programs provide structured training, career development, and networking opportunities, as well as additional travel grants for doctoral students.

How to apply:

If you are interested in the position, please submit your application through this [form](#). To ensure a fair and equitable selection process, we ask that you **do not include a photo** in your application documents. Please have the following documents and information ready before completing the application form:

- CV
- BSc and MSc transcripts
- Names and contact information of 2 referees

Applications will be considered until **November 15, 2026**, or until the position is filled.

We also strongly encourage you to additionally apply to our structured PhD programs and list Shervin Safavi as a potential supervisor:

- <https://www.digs-ils.phd/join/phd-positions> (deadline: October 15)
- <https://imprs-coni.mpg.de/90532/call-for-applications> (deadline: November 2)

We are committed to employing diverse individuals and strive for gender equity and diversity. We welcome applications from individuals of all backgrounds and explicitly encourage members of underrepresented groups to apply.

If you have any questions, you can contact us at applications@cmc-unit.org. Please include “phd_hforage202610” in the email title.