

PhD-position – electro-communicating fish robots

We invite applications for a **3-year Ph.D. position (TV-L13, 65%)** in the DFG-funded project “Robots communicating with fish: Investigating the role of electric signals and locomotor displays following episodes of mutual attention in weakly electric fish.” This project is carried out in close cooperation with the Biorobotics Lab of Prof. Dr. Tim Landgraf at the Free University Berlin.

In this project, we investigate the rules governing social interactions in group living weakly electric fish. By designing a fully interactive, biomimetic fish-robot, which operates in closed-loop both electrically and locomotory, we aim at deciphering how group members coordinate their movements and come to joint decisions. The PhD candidate will participate in the development of the communicating robot in cooperation with the Landgraf group and then use the robotic fish to investigate electro-communication behaviour in fish groups, in particular to disentangle the role of interactive electric and locomotor behaviours for group coordination.

You have:

- a Master degree in Neurobiology, Behavioral Sciences, robotics, or related fields
- an excellent academic track record
- experience in behavioural, neuro- or sensory biology, robotics, programming, or related areas
- the ability to work both independently and in a team
- good organizational and computer skills
- strong communication and writing skills in English

We offer:

- salary according to TV-L13, 65%, for 3 years
- a multi-faceted and challenging position in two cooperating research-active working groups (www.researchgate.net/profile/Gerhard_Emde ; www.researchgate.net/profile/Tim_Landgraf)
- further education and training opportunities at the University of Bonn, e.g. participation in BIGS-BIO (Bonn International Graduate School for Biology)

Complete applications (consisting of a CV, list of publications, letter of motivation, names of two references) should be submitted as a single PDF until 31th of July 2020 via email to vonderemde@uni-bonn.de.

For further information please contact Prof. Dr. Gerhard von der Emde, phone: +49 (0)228/735555.