Deutsches Zentrum
für Luft- und Raumfahrt
German Aerospace Center

Linder Höhe
D-51147 Köln
Telephone: +49 (0)2203 601-0
Internet: https://www.dlr.de

DAAD
Deutscher Akademischer Austauschdienst
German Academic Exchange Service

Kennedyallee 50
D-53175 Bonn
Telephone: +49 (0)228 882-0
E-mail: dlr-daad-program@daad.de
Internet: https://www.daad.de/dlr

DLR – DAAD Fellowships

Fellowship No. 400

Research Area : **Space**

Research Topic: **Study of particle trajectories during the onset of collective effects using machine learning**

DLR Institute: **Institute of Materials Physics in Space, Research Group on Complex Plasmas, DLR Oberpfaffenhofen**

Position: **Postdoctoral Fellow**

Openings: 1

Job Specification: Complex plasmas consist of microparticles embedded in a low-temperature plasma. The microparticles strongly interact with each other, and collective phenomena emerge. The positions of the microparticles can be recorded with fast cameras, and their motion followed. We perform experiments on parabolic flights and in the laboratory PK-4 on board the International Space Station to reduce the influence of gravity.

The research group on Collective Effects embedded in the Complex Plasma group at the Institute of Materials Physics in Space at DLR Oberpfaffenhofen studies the emergence of collective effects, especially turbulence. We are looking for a postdoc to develop data analysis routines of particle trajectories during this transition using machine learning techniques, while closely collaborating with experimentalists and simulation experts.

Required Qualification: PhD in Physics, Engineering or Computer Science, very good programming skills, enthusiastic about working in interdisciplinary teams, ability to acquire missing skills.

Advantageous Skills: Experience in machine learning, particle tracking, complex plasma physics, track record of scientific publications

English competence: See requirements on www.daad.de/dlr; Proficient oral and written communication skills

Earliest Start Date: As soon as possible

Application Deadline: Until position filled

Further Information: http://www.dlr.de
http://www.daad.de/dlr
http://complex-plasmas.dlr.de