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DLR – DAAD Fellowships

Fellowship No. 380

Research Area :	Space
Research Topic:	Theory and numerical simulations of complex plasma structures and dynamics under microgravity conditions
DLR Institute:	Institute of Materials Physics in Space, Research Group on Complex Plasmas, DLR Oberpfaffenhofen
Position:	Senior Scientist
Openings:	1
Job Specification:	<p>A Senior Scientist fellow position will be available in the Research Group on Complex Plasma at the DLR Institute of Materials Physics in Space with support from German Academic Exchange Service (DAAD). The successful candidate will perform numerical simulations related to structural and dynamical properties of the liquid state with main emphasis on the properties of three-dimensional complex plasma under microgravity conditions. He/She will participate in analyzing experimental results, perform comparison between theory and experiment, and will actively participate in preparation of publications. The position will be based in the Oberpfaffenhofen location of DLR.</p> <p>Research into complex plasma under microgravity conditions is one of the main research activity of the Research Group Complex Plasma at the DLR Institute of Materials Physics in Space. The long-standing research program with research laboratories operating onboard the International Space Station PKE-Nefedov (2001-2005), PK-3 Plus (2006-2013), and PK-4 (2014-ongoing) has been focused on investigating fundamental process in liquid and crystalline complex plasma [see for a recent review Thomas et al, Plasma Phys. Control. Fusion 61, 014004 (2019)]. The purpose of the present project is to strengthen the group activities and experience in numerical simulations and experimental data analysis related to the microgravity research program. Main attention will be focused on structural and dynamical properties of the particle component. In particular, it is foreseen that interdisciplinary aspects of complex plasma research and relations to</p>

other classical soft condensed matter systems will receive priority consideration.

Required Qualification: Completed PhD degree (or equivalent) in physics, minimum 5 years of postdoctoral research experience in fields related to complex (dusty) plasma or soft condensed matter, excellence in numerical simulations techniques

Advantageous Skills: Knowledge of basic plasma physics, data analysis, image analysis and particle detection/tracking.

English competence: Good communication skills and command of English: See requirements on www.daad.de/dlr

Earliest Start Date: 01.04.2019

Application Deadline: Until position filled

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