



DLR – DAAD Fellowships

Fellowship No. 464

Research Area : Space

Research Topic: **Laser links communications and navigation in deep-space missions**

DLR Institute: Institute of Communications and Navigation, DLR Oberpfaffenhofen

Position: Doctoral Fellow

Openings: 1

Job Specification:

Optical free-space links from deep-space space-probes allow increasing the data rate in communications, enabling applications with larger bandwidth requirements in increasing the data-return to Earth. Exploration requires also navigation in manoeuvres of the space probes. Laser technologies can complement the accuracies in navigation, complementing the current technologies based on RF.

The main task of this position will be to research different technologies for a deep-space mission supporting communication and navigation based on a laser link between a space probe and a ground station. The position will require theoretical analysis, simulations and laboratory work, whenever is possible. The goal is to define a mission and design the different subsystems, identifying the critical technologies.

Required Qualification: Degree in Mechanical Engineering / Electrical Engineering / Physics, or similar fields with superior qualification.

Advantageous Skills: Experience in the field of optical satellite communications and in space applications

English competence: **Fluent** - See requirements on www.daad.de/dlr

Earliest Start Date: 01.11.2020

Application Deadline: 01.10.2020

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