



DLR – DAAD Fellowships

Fellowship No. 556

Research Area : Space

Research Topic: Investigation of long-term atmosphere changes on the ionosphere

DLR Institute: Institute for Solar-Terrestrial Physics, DLR Neustrelitz

Position: Doctoral Fellow

Openings: 1

Job Specification:

The Earth's upper atmosphere in an altitude above 100 km is a mixture of neutral and charged gas species. The gas and plasma densities and dynamics in the upper atmosphere play an important role for the operation of satellites and for the transmission of radio signals through this region. Although the conditions in the Earth's upper atmosphere are mainly driven by solar forcing, the conditions in the atmosphere below also have a significant impact on the variability of the thermosphere (neutrals) and ionosphere (plasma). Today, there exists ionosphere data covering the globe for more than two decades and data sets of numerical models dating a few decades backwards. The offered fellowship shall investigate these large data sets for atmosphere impacts on long time scales (larger than one year). State of the art statistical methods shall be applied for this task.

Required Qualification:

- Completed university studies in physics, meteorology, atmospheric sciences or a comparable field of study.
- Good background knowledge of electrodynamics and plasma physics or atmospheric physics and in the application of statistical methods
- Very good programming skills in Matlab, Python or similar scientific programming languages
- Proficient in using scientific computing environment, Linux, Shell, bash etc.

- Good self-organization and a high degree of initiative in tackling complex technical and scientific problems

Advantageous Skills:

- Background knowledge and data knowledge of ionosphere and thermosphere observations
- Analytical thinking
- Team working

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

Earliest Start Date: 1. October 2022

Application Deadline: 15. August 2022

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