**Technische Universität Berlin - Fakultät VI Planen Bauen Umwelt - Institut für Geodäsie und Geoinformationstechnik – Fachgebiet Planetengeodäsie**

**Research Assistant in the DFG-Project Triple Asteroids**

**Pay group 13 TV-L Berlin universities**

**Field of activity:**

This project at the Technische Universität Berlin (TUB) is concerned with the dynamics of small bodies in the solar system. Asteroids in Earth-crossing orbits pose a threat to our planet and, on the other hand, they represent targets for future space missions. Double and triple asteroids provide important information about the origin and dynamic development of these bodies. The project investigates the longevity of such systems, as well as the motion of space probes within these systems. The mutual disturbances of the bodies and tidal effects play an important role. We are looking for stable orbits in so-called "terminator orbits" as well as orbits around the "Lagrange points". The project is funded by the German Research Foundation (DFG) and is carried out in cooperation with the German Aerospace Center (DLR), Institute of Planetary Research.

We are looking for a committed scientist for this challenging cooperation project. With very good previous knowledge, a doctoral thesis can be prepared with the expected project results.

**Task description:**

* Numerical integration of satellite orbits under the influence of gravitational and non-gravitational perturbations, e.g., radiation pressure
* Investigation of the long-term stability of orbits
* Cooperation with the German Aerospace Center (DLR)
* Preparation and presentation of the results in project meetings, symposia and in scientific journals.

**Expected qualifications:**

* Successfully completed university studies (master, diploma or equivalent) in geodesy, astronomy, planetary research, physics, mathematics, or a related field.
* Experience in dealing with astronomical observations and ephemerides.
* Experience in the field of analytical and numerical description of satellite orbits
* Interest in planetary research, geodesy and dynamics of small bodies
* Competence in data processing and programming under LINUX and C
* Ability to work independently and to communicate with external cooperation partners, willingness to integrate into a multidisciplinary team
* Very good knowledge of written and spoken English

**Start: immediately**

**Duration: 3 years**

**Working time: 75%**

**Compensation: E13 TV-L Berlin universities**

**Location: TU Berlin**

**Notes on application:**

Please send your written application with the usual documents (curriculum vitae, university certificates, list of publications and possibly up to three references) and the reference number to

Technical University of Berlin

- The President

Faculty VI, Institute of Geodesy and Geoinformation Technology, Planetary Geodesy,

Prof. Jürgen Oberst, Sekr. H 12,

Straße des 17. Juni 135, 10623 Berlin, Germany

or by e-mail to [rosemarie.kunkel@tu-berlin.de](mailto:rosemarie.kunkel@tu-berlin.de)

To ensure equal opportunities between women and men, applications from women with the relevant qualifications are expressly welcome.

Severely handicapped persons with equal aptitude will be given preferential consideration. The TU Berlin appreciates the diversity of its members and pursues the goals of equal opportunities.

For cost reasons, the application documents will not be returned. Please submit copies only.