

# **DFG** FШF SNF

#### Postdoc positions in the D-A-CH project

Two post-doc positions are available in the D-A-CH project, an international collaboration of scientists from Germany (D), Austria (A) and Switzerland (CH). The aim of this project is to better understand the activity of comets by combining laboratory experiments on analogue materials, thermophysical modelling and analysis of observations of comets. The program will formally start at the end of 2018 for a duration of three years. During the first half of the project, preparatory experiments will be conducted at all three centers (Braunschweig, Graz and Bern). In parallel, a large simulation chamber for cometary processes will be installed at the Technische Universität Braunschweig. All project participants, scientists and other partners, will join for this last phase of the D-A-CH project, as most of the experiments will be performed in this large chamber during the second half of the project.

In total, the D-A-CH project comprises four positions (three post-doctoral positions and one doctoral position), two at the Technische Universität Braunschweig, one at the Institut für Weltraumforschung Graz (IWF) and one at the Universität Bern (UB). In addition, researchers from the Max-Planck-Institut für Sonnensystemforschung Göttingen (MPS) and from the Deutsches Zentrum für Luft- und Raumfahrt Berlin (DLR) will closely collaborate within this project. Team meetings on a regular basis are an integral part of the program to strengthen the collaboration between the groups.

#### Postdoc position at the Technische Universität Braunschweig

The Institut für Geophysik und extraterrestrische Physik (IGEP) is offering a full (TVL E13; funded by DFG) post-doctoral position in the framework of the D-A-CH project for three years. The intended starting date is between September and December 2018. Within the D-A-CH project, IGEP will be responsible for the installation of the comet simulation chamber as well as for the thermophysical modelling of the experiment and of comets. This position requires a person either skilled in **experiment development and construction** (e.g., vacuum techniques, experiments at cryogenic temperatures, granular materials), <u>or</u> skilled in **thermophysical modelling**. Therefore, a combination of skills listed below would be particularly advantageous:

- Ability to design and install experiments, <u>or</u> to develop and use thermophysical models.
- Understanding of physical processes at work on comets or other icy objects (e.g., sublimation of ices, energy and mass transport processes).
- Good knowledge of the Rosetta dataset (and/or previous cometary missions).
- Ability to work in the laboratory: prepare and characterize samples, perform measurements, collect and store data and notes...
- Ability to reduce and analyze complex experimental data.
- Ability to communicate and work with colleagues from a wide range of functional backgrounds (e.g. engineering, science, management, technical, non-technical, etc.) as part of a diverse international team is essential.
- Willingness to travel.









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The working language is English. Ability to communicate in German is desired but not required. Candidates should hold a PhD at the starting date of the post-doctoral contract. To apply, please submit the following documents electronically to Dr. Bastian Gundlach (<u>b.gundlach@tu-bs.de</u>):

- 1) Letter of motivation.
- 2) Curriculum vitae with description of previous research experiences.
- 3) Contact details of people who could provide a letter of reference.

Complete applications received by August 31, 2018 will receive full consideration. The position might remain open after this date if no suitable candidate has been found.

### Postdoc position at the Universität Bern

A postdoctoral research position is available in the Planetary Imaging Group (PIG) at the University of Bern (CH) to conduct laboratory experiment This position is funded by the Swiss National Science Fundation (SNSF). This post-doctoral position is funded for three years with an intended starting date between September and December 2018.

The hired post-doctoral researcher will spend extensive periods of time in Braunschweig towards the end of the project. Within the D-A-CH program, Bern will be mostly responsible for the selection of analogues for the non-icy parts of the samples, in particular the organic fraction, and the measurement of the spectro-photometric properties of the samples. The profile of the hired Postdoc derives from these intended responsibilities. A combination of some of the skills listed below would be particularly advantageous:

- Knowledge of mineralogy and organic chemistry relevant for the composition of organic material.
- Good understanding of the scattering of light by surfaces.
- Understanding of physical processes at work on comets or other icy objects.
- Familiarity with the concepts and methods of optical remote-sensing and/or in-situ composition measurements.
- Good knowledge of the Rosetta dataset (and/or previous cometary missions).
- Ability to work in the laboratory: prepare and characterize samples, perform measurements, collect and store data and notes...
- Ability to reduce and analyze complex experimental data.
- Ability to communicate and work with colleagues from a wide range of functional backgrounds (e.g. engineering, science, management, technical, non-technical, etc.) as part of a diverse international team is essential.
- Willingness to travel.

The working language is English. Ability to communicate in German is also desired but not required. As a result of SNSF regulations on employment, candidates should hold a PhD for no longer than 2 years at the starting date of the post-doctoral contract.











To apply, please submit the following documents electronically to Dr. Antoine Pommerol (antoine.pommerol@space.unibe.ch):

- 1) Letter of motivation.
- 2) Curriculum vitae with description of previous research experiences.
- 3) Contact details of people who could provide a letter of reference.

Complete applications received by August 31, 2018 will receive full consideration. The position might remain open after this date if no suitable candidate has been found.

