

Project: 18/13 Analysis of NOMAD-UVIS data from the ExoMars orbiter mission to Mars.

Company: The Open University

Supervisor: Jon Mason

Location: Milton Keynes

Company Description: The Open University is an internationally recognised research leader in planetary and space sciences and the development of space instrumentation. Covering a wide range of disciplines from astrobiology to electrical engineering, geochemistry to quantum physics; and technologies from electronic imaging to remote sensing, mass spectroscopy to novel sensors; Open University researchers are often found in key roles in international space science missions such as Rosetta, ExoMars, Euclid, JUICE and Athena; with much of the activities performed in collaboration with Space Agencies, Universities and companies around the World. This research also informs our world-leading teaching in the Physical Sciences, Engineering and Earth and Environmental Sciences. So

Project Description: The Ultraviolet and Visible Spectrometer (UVIS) is part of the NOMAD instrument on-board the European Space Agency's ExoMars Trace Gas Orbiter (TGO) mission to Mars. UVIS has collected a large quantity of data, and this project will exploit these data from Mars to improve the performance of the UVIS CCD detector. The characterisation is intended provide a significant improvement to the quality of the atmospheric science gained from UVIS in this mission.

Project holder responsibilities:

1. Processing of spacecraft data to determine noise sources
2. Analysis of processed data
3. Archiving of results
4. Development of software for visualisation of large data sets
5. Write-up of the results

The project offers the applicant:

- To work as part of a spaceflight team for the latest European Space Agency mission to Mars
- Development of skills relating to the processing and analysis of spacecraft data
- Opportunities to develop good analytical skills

Applicant Specification:

- Studying for a degree in Physics/Maths/Computing or related field.
- Knowledge of computer programming, for example Python or MATLAB
- Confident using Microsoft Office
- Work well in a group / good team working and inter-personal skills

- Able to plan individual workload

Minimum Requirements:

- Studying for a degree in Physics/Maths/Computing or related field.
- Knowledge of computer programming, for example Python or MATLAB
- Confident using Microsoft Office

Further details:

8 weeks minimum fixed term contract to be agreed with successful candidate but nominally with a start date around 25 June 2018. Salary is £1,500 per calendar month.

Closing Date for Applications: 04 April 2018

Applications will be through the online form attaching a CV, before the closing date. They will be checked for eligibility and forwarded to the employer.