

Data visualisation of NOMAD-UVIS observations from the ExoMars orbiter mission to Mars

Code: 20/12

Company: The Open University

Location: The Open University, 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

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 with over two million spectral measurements of the martian atmosphere. This project will primarily focus on the development of software to visualise these 4-D datasets to enable scientific analysis. The ability to visualise large complex datasets will provide a significant improvement to the quality of the atmospheric science gained from UVIS in this mission.

Applicant Specification:

Project holder responsibilities:

1. Develop code for visualisation of large data sets
2. Create novel methods for visualisation of 4-D datasets
3. Analyse processed data
4. Write-up visualisation routines

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 visualisation of spacecraft data
- Opportunities to develop programming skills

Person 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 interpersonal skills
- Self-motivated and well organised

Further details:

8 weeks fixed term contract to be agreed with successful candidate. The gross salary will be approximately £1800 per calendar month. Net take-home pay, after tax and national insurance deductions, will be approximately £1500 per month.

Closing Date for Applications: 5pm Tuesday 24 March

Applications should be made through the online form attaching a CV, before the closing date. Please note that elements of the form left incomplete will be deemed to render the application ineligible. They will be checked for eligibility and forwarded to the employer.