Further development of Radiation damage simulation software

Code: 20/13

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 harsh radiative environment in space is a major challenge to most space mission as the highly energetic particle can damage the on-board detectors and thus detriment the scientific output of the mission. At the OU we are doing research into radiation damage of imaging detectors in order to further our understanding of the effects of this damage.

For this purpose a software model has been created that can simulate how radiation damage will affect the data from an imaging detector. The model has already been used for a number of future space missions, but would benefit from further development, especially in terms of making it more user friendly.

While helping to improve the software, the intern will also gain knowledge about imaging detectors and radiation damage and thereby be part of improving the scientific output of current and future space missions.

Applicant Specification:

Experience with Python programming is needed. Knowledge of detectors and/or high energy physics is considered a plus.

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.