JOB OPENING

The Royal Observatory of Belgium seeks a calibration scientist (F/M/X) for the EUI space telescope on Solar Orbiter

Solar Orbiter is ESA's leading deep space solar observatory, orbiting the Sun in a highly elliptical orbit with a perihelion below 0.3 au. One of the cornerstone instruments onboard Solar Orbiter is the Extreme Ultraviolet Imager (EUI). Operating since 2020, EUI consists of 3 telescopes imaging the solar corona at the highest spatial resolution and largest field of view ever. As a consequence, the scientific return of EUI has been spectacular so far. A significant fraction of the nominal lifetime of EUI (which is about 10 years) has passed and continuous monitoring of health and performance of the EUI telescopes and their CMOS imaging sensors becomes increasingly important. For example, the long-term degradation of the EUI sensors under EUV light is being assessed as we go.

The Royal Observatory of Belgium (ROB) is the Principal Investigator (PI) institute of the EUI instrument and is therefore responsible for monitoring the instrument health and for running the EUI software pipeline that produces calibrated science data products. Together with colleagues in the EUI partner institutes, specific calibration measurements are regularly scheduled and inter-comparisons with similar instruments are made. Occasionally, EUI spare parts are (re)tested in the ROB laboratory or elsewhere.

In order to continue ensuring these ongoing EUI calibration activities, ROB is seeking to hire a EUI calibration scientist.

The selected candidate will work within the EUI PI team at ROB, which is a small team (4 people) within the bigger solar physics group (SIDC, Solar Influences Data analysis Centre) at ROB of about 50 people from a diverse background. The selected candidate will interact frequently with the international EUI consortium outside ROB and with related projects and researchers within ROB/SIDC.

Tasks

The offered position involves:
- Conducting independent research on open EUI calibration issues and propose solutions to address these (better software, different operations, etc.).
- Planning and optimizing calibration measurement campaigns on the flight model in space and possibly on spare parts in the laboratory.
- Maintaining the current performance state of the EUI instrument in terms of throughput lost, aging mechanisms, etc.
- Maintaining the software pipeline (mainly Python) for calibration of the EUI imagery.
- Supporting researchers with questions on EUI data products and their calibration status, and as such, take part in solar physics research.
- As part of the EUI PI team, taking part in the operational duty cycle thereby producing the outgoing commanding and checking the incoming telemetry.
- As part of the larger ROB/SIDC solar physics team: advising and supporting related space projects at ROB/SIDC.

Profile

Requirements for the Candidate:
- Must hold a Master's or PhD degree in exact or applied sciences.
- Must possess excellent communication skills in English.
- Must have experience in either observational solar physics, or with calibration of telescopes / CMOS imaging sensors
- Knowledge of Python or at least one programming language.

We are looking for a candidate who shares our enthusiasm/dedication to maximize the scientific exploitation of the EUI instrument.

ROB offer

The ROB (http://www.observatory.be) is a Belgian federal institute located in the green outskirts of Brussels in Ukkel. The institute is seeking a qualified candidate for a job opening in the "Solar Physics and Space Weather" Operational Directorate (https://www.sidc.be), which is a group of dedicated international scientists and engineers. The working conditions include a flexible system of working hours and teleworking, allowing for a healthy work-life balance.

The job offer is a **full-time position** in the SW1 category. To get an estimate of the salary, a simulator is available at https://salsim.fedweb.belgium.be/mod2-q1.php. The position is for a **one-year contract**, renewable based on mutual satisfaction. The selected candidate will be recruited in activity group 1 (scientific research).

How to apply

Send your CV and an accompanying motivation letter to David Berghmans (david.berghmans@oma.be), Cis Verbeeck (cis.verbeeck@oma.be) and dir-rob@oma.be. Candidates can contact david.berghmans@oma.be for additional information. Applications are welcome until **September 20, 2024**.