



JOB OPENING

The Royal Observatory of Belgium seeks a scientist (F/M/X) for the JEDI space telescope aboard the Vigil mission

Vigil is a mission in the Space Safety Programme of the European Space Agency (ESA). It will be launched in 2031 into a heliocentric orbit and reach the L5 Lagrange point of the Sun-Earth system in 2035. Vigil will provide uninterrupted space weather measurements from a vantage point away from the Sun-Earth line, in order to improve the space weather services to protect critical Earth-based and space-based infrastructure. One of the cornerstone instruments aboard Vigil is the Joint coronal EUV Diagnostic Investigation (JEDI) led by the South-West Research Institute (USA). JEDI is a next-generation high-cadence, large-field-of-view extreme ultraviolet (EUV) imager to study the ground state of space weather – the solar wind – and space weather transient events (flares and coronal mass ejections, CMEs). JEDI will consist of two telescopes that will image the solar corona up to 3.2 solar radii, providing data both for operational space weather applications and for fundamental studies of the solar corona.

The Royal Observatory of Belgium (ROB) is a Co-Investigator institute of the JEDI instrument contributing to the onboard software specifications, selection of the JEDI detectors, testing of the camera, on-ground calibration, and on-ground data processing software. The JEDI consortium includes partner institutes in the USA, Belgium, France, and Switzerland.

In order to ensure the scientific and technological activities for JEDI, ROB is seeking to hire a JEDI scientist.

The selected candidate will work in the JEDI team at ROB, which is a small group within the bigger solar physics department ([SIDC](#), Solar Influences Data Analysis Centre) of about 50 people. The selected candidate will also interact with the international JEDI consortium and with related projects and researchers within ROB/SIDC.

Tasks

The offered position involves contributing to the following tasks:

- Selection of the EUV detectors for JEDI based on the calibration measurements of existing detectors in the laboratory.
- Preparation of specifications for the onboard software that will be used with the JEDI detectors.
- Design and planning of tests and calibration measurements for the detector and associated camera electronics.
- General follow-up of the JEDI science and technological activities at ROB.

Profile

Requirements for the Candidate:

- Must hold a Master or PhD degree in exact or applied sciences.
- Must possess excellent communication skills in English.
- Must have experience in either observational astrophysics, or with calibration of telescopes.
- Knowledge of Python or at least one programming language.

We are looking for a candidate who shares our enthusiasm/dedication to reach the goal of designing and manufacturing the JEDI instrument for the Vigil mission.

ROB offer

The ROB (<http://www.observatory.be>) is a Belgian federal scientific institute located in the green outskirts of Brussels in Uccle. 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 for a **full-time position** in the SW1 category, activity group I: research. To get an estimate of the salary, a simulator is available at <https://salsim.fedweb.belgium.be/mod2-q1.php>. The position is starting on 01 January 2025 for a **one-year contract**, renewable based on mutual satisfaction and funding situation.

How to apply

Send your CV and accompanying motivation letter to Andrei Zhukov (Andrei.Zhukov@sidc.be), and dir-rob@oma.be. Candidates can contact Andrei.Zhukov@sidc.be for additional information. Application deadline is **01 September 2024**.

