

## **EUROPEAN SPACE AGENCY**

### **Vacancy in the Directorate of Science and Robotic Exploration**

The European Space Agency is an equal opportunity employer and encourages applications from women

#### **POST**

MIRI Instrument & Calibration Scientist in the JWST Science Operations Development Team, Operations Development Division, Operations Department, [Directorate of Science and Robotic Exploration](#).

This post<sup>1</sup> is classified in the A2/A4 grade band of the Coordinated Organisations' salary scale.

#### **LOCATION**

Space Telescope Science Institute, Baltimore (USA).

#### **DUTIES**

As part of its collaboration with NASA on the James Webb Space Telescope (JWST), ESA is building up a Science Operations Team that will support the testing, commissioning and operations of the near-infrared spectrograph NIRSpec (provided by ESA) and of the mid-infrared imager and spectrograph MIRI (provided by a European Consortium (EC)).

The ESA JWST Science Operations Team is based at the Space Telescope Science Institute (STScI) in Baltimore, which is under contract with NASA to serve as the science operations centre for JWST.

In this context, the postholder will join the ESA JWST Science Operations Team and is expected to bring in additional expertise on mid-infrared imaging and spectrography in general and MIRI in particular.

The incumbent will report to the Science Operations Development Manager in the ESA JWST Science Operations Team. In addition to the ESA JWST Science Operations Team, the postholder will work in close collaboration with the ESA JWST Project Team, the ESA JWST Project Scientist, the MIRI European Consortium and Test Team, STScI and the NASA JWST Project Team.

During the pre-launch phase of the mission the incumbent will be responsible for:

- developing and maintaining an active collaboration with the MIRI test team and in particular with the MIRI EC calibration and operations lead;
- liaising between the MIRI Test Team and the ESA JWST Science Operations Team and facilitating the interaction and collaboration with STScI and NASA's Goddard Space Flight Center (GSFC).

The work will also include the following tasks:

- working with the MIRI EC on supporting the planning and execution of the JWST ground calibration campaigns involving MIRI in the US, participating in the associated data analysis report preparation and calibration reference file generation;
- working with STScI and the MIRI EC on the definition and specification of the architecture of and detailed algorithms for the MIRI Pipeline Data Reduction system developed by STScI;
- working with STScI on implementing and validating the MIRI-specific elements of the JWST ground system;

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<sup>1</sup> Supernumerary post

- supporting the planning of the detailed content and the execution of the MIRI on-orbit commissioning and calibration program.

In addition to the above functional duties, the postholder is expected to carry out active astronomical research, potentially in collaboration with members of the MIRI EC and other members of the ESA JWST Science Operations Team.

The successful incumbent will be expected to take up duty at STScI no later than spring 2015 in order to contribute to the final ISIM calibration campaign and a successful commissioning phase. Duties will include continuing to contribute to the routine operational phase of the mission as a member of the MIRI support group at STScI as part of ESA's contribution to JWST operations.

## QUALIFICATIONS

Applicants for this post should have a Ph.D. or equivalent qualification in astronomy, physics or a related discipline. Candidates must have an established record of independent research and scientific publications in astronomy and an active research programme, preferably aligned with the scientific capabilities of JWST.

Expertise with modern astronomical data analysis software, reduction and calibration of spectroscopic data, and experience with the characterisation of IR instrumentation are essential for this post.

Expertise with integral field spectroscopy, mid-infrared detector systems and/or previous experience in science operations of astronomical space missions are considered key additional assets. Prior knowledge of the MIRI instrument is a distinct advantage.

Applicants should have excellent analytical, communication and synthesis skills, and a pragmatic and proactive attitude to solving problems. They should also have good interpersonal skills with the ability to work effectively in an international team environment.

The working languages of the Agency are English and French. A good knowledge of one of these languages is required. Knowledge of another Member State language would be an asset.

## CLOSING DATE

The closing date for applications is **17 October 2014**.

Applications from external candidates for this post should preferably be made [online](#) from the ESA website ([www.esa.int/careers](http://www.esa.int/careers)). Those unable to apply online should submit their CV to Human Resources, ESA, 8-10 rue Mario-Nikis, 75738 Paris, Cedex 15 (France).

ESA staff members wishing to apply for this post should fill in the [Internal Application Form](#) and email it to [Apply2HQ](#).

The Agency may require applicants to undergo selection tests.

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**Under ESA Regulations, the age limit for recruitment is 55. Please note that applications are only considered from nationals of one of the following States: Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal, Romania, Spain, Sweden, Switzerland, the United Kingdom and Canada.**

**Priority will first be given to internal candidates and secondly to external candidates from under-represented Member States.**

**In accordance with the European Space Agency's security procedures and as part of the selection process, successful candidates will be required to undergo basic screening before appointment.**