



Post-doctoral program of the Paris Observatory – PSL

Applications are solicited for up to three post-doctoral positions in astrophysics at Paris Observatory-PSL. The positions are funded for one year, renewable for a second year.

Paris Observatory is one of the largest astronomical centres in the world with 850 employees and 840 publications per year. It represents one fourth of French astronomy with teams covering a wide range of research fields and participating in the largest instrumental, theoretical, numerical and experimental projects of modern astronomy. Research teams are located on three main sites, amongst which two are in the Paris area (Paris and Meudon). The third one is the Nançay astronomical radio observatory. Paris Observatory-PSL is part of a rich astronomical environment in the Paris area comprising about 800 scientists.

Paris Observatory is a founding member of Paris Sciences et Lettres – PSL, a young university federating nine prestigious research and higher education institutions in the fields of sciences, humanities, and arts, such as the Paris École Normale Supérieure, or Paris-Dauphine University, and involving as well ten associate institutions.

Applicants are expected to conduct research related to the Strengths, “Pépites”, and Emergences of the Paris Observatory (see annex).

This call is open to applicants of any nationality. The gross monthly salary depends on experience, included health insurances. Contracts should normally start between September and December 2025.

Selection criteria and procedure

Applications will be selected according to the following criteria:

- a) Scientific interest of the project in the context of the specific field of research and how it fits within the priorities of the Paris Observatory and of the research laboratory;
- b) Scientific track record of the applicant and relevance of the proposed project in his/her employability and longer-term career. Selected candidates are strongly invited to apply for permanent positions in one the Paris Observatory laboratories during their stay.
- c) Work plan for **two years** : pertinence and consistency with respect to the scientific objectives;
- d) Synergy between the project and the host team;
- e) Clarity and pedagogy of the application documents.

Applications will be selected as follows :

1. Candidates must apply online at <https://call-cs-postdoc.obspm.fr/>. Letters of recommendation (external to the applicant's host laboratory) must be sent separately to postdoc.reference@observatoiredeparis.psl.eu before the deadline (see calendar below). Incomplete applications will not be considered.
2. Pre-selection of applications by the Paris Observatory research laboratories: each laboratory can select a limited number of applications depending on its size (number of research teams and number of researchers). Criteria (a), (b), and (d) are used during the pre-selection step. A maximal number of 30 applications are pre-selected and transmitted to the Scientific Council of the Paris Observatory;

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3. Each pre-selected application is graded according to criteria (a), (b), (c), (d) and (e) by three reviewers selected within the Scientific Council. Each criterion carries equal weight in the average grade. Applications are ranked according to the average grades and the 60% best applications are selected for the next step of the selection process;
4. The remaining applications are discussed during the Fall session of the Paris Observatory Scientific Council, from which about 10 applications are finally selected based on all criteria with emphasis on criterion (a). The first ranked applications, depending on the exact number of positions offered that year, are contacted right after to be offered a position. Applications ranked up to the 10th rank (waiting list) are also contacted;
5. If a candidate to whom a position was offered declines, the position is offered to the next candidates on the waiting list until the position is fulfilled.

Schedule

August 30, 2024: publication of the call

October 9, 2024: closure of the call

October 11 to 25, 2024: pre-selection step

December 6, 2024: Final selection (second and final selection steps)

The results will be communicated to the candidates after each step of the selection process.

As of January 2025 the Paris Observatory laboratories will be reorganised. Applications are expected to be submitted in close collaboration with the hosting team, within the framework of the current laboratories. Successful candidates will then follow the hosting team in the new laboratory.

Annex

The Strengths cover fields of excellence of the Paris Observatory:

- From planetology to exoplanetary systems;
- Laws of gravitation, compact objects and high energies;
- Galaxies: from stars to large structures;
- Instrumentation : research and engineering;
- Data processing pipelines.

The "Pépites" are the fields in which Paris Observatory Teams are unique in France, and recognized at national and international level:

- Celestial mechanics and reference systems;
- Time-frequency metrology and atomic interferometry;
- Interstellar medium: laboratory experiments, AI, modelling;
- Stellar physics: from seismology to galactic archaeology;
- Heliospheric plasmas and Earth-Sun relations;
- Scientific computing;
- Virtual Observatory and data dissemination;
- TeraHertz detectors;
- Flight software;
- New real-time computing architectures;
- History of Science and Astronomy;
- Land surfaces and atmospheres.

The Emergences are fields with a strong potential of rupture:

- Exoplanetary magnetospheres: advent of low frequency radioastronomy;
- Stellar winds and magnetosphere: space UV spectropolarimetry;
- From heavy simulations to large surveys: reionisation and cosmology;
- Optical/Near Infrared inductance imaging spectrometers.

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Application form

By the applicant

- Go to the platform : <https://call-cs-postdoc.obspm.fr/> after login in, read the user guide (top right)
- Fill in the form
- **Mandatory documents to be filed by the applicant**
 - CV
 - Passport copy
 - Phd Certificate (if the defense is passed)
 - Research program (covering two years)
 - Publication list
 - Support letter from the hosting team – must be provided by the scientific supervisor to the candidate who must submit it with his application on the platform.
 - Save the application form until it is completed by clicking the SAVE button. Once it is completed, confirm your application by clicking CONFIRM MY APPLICATION. Your application is then submitted and you will not be able to modify it anymore. You should receive a confirmation email.

August 30, 2024
Opening of the call for applications

External reference letter

By referees

- A reference letter from scientist(s) outside the Paris Observatory should be sent.
- At least one letter, maximum two letters by application.
- Letters should be sent directly by the referee at postdoc.reference@observatoiredeparis.psl.eu
- Letters should be sent in PDF format named as follows : NAMEapplicant_firstnameapplicant_NAMEreferee.pdf
- Letters directly sent by applicants or received after the deadline will not be accepted.

October 9, 2024
Deadline for receipt reference letter

Closure of the platform

October 9, 2024

Selection steps

- Only eligible applications will be considered for the pre-selection step.
- Pre-selection of applications by the Paris Observatory research laboratories: each laboratory can select a limited number of applications depending on its size.
- Final selection : a maximal number of 30 applications are pre-selected and transmitted to the Scientific Council of the Paris Observatory for evaluation.
- Applicants are informed of the results after each step of the selection process.

October 11 to 25, 2024
pre-selection step

December 6, 2024
Final selection