

JOB ANNOUNCEMENT DETERMINA 242/2023

The Istituto Nazionale di Astrofisica – Osservatorio Astrofisico di Arcetri (INAF-OAA) is offering a position in ***“Development of quasi-optical components based on metamaterials for novel cm- to mm-wave astronomical observations.”***

RESEARCH PROJECT

The main goals of this project are the design, production and testing of new passive microwave components for radio astronomy instrumentation which will contribute to improving the observing performance of the INAF telescopes. In particular, the candidate will participate in the design and testing of auxiliary optical systems to increase the resolving power of a radio telescope beyond the diffraction limit (super-resolution). Some of the optical systems being designed require the use of the so-called "metamaterials".

ELIGIBILITY

The appointment is expected to begin by **February 2024** and will be for twenty-two months in the first instance, and renewable afterwards, subject to funding availability and performance review. The yearly gross salary is 24,000 Euros.

Prospective candidates are encouraged to contact:

- Dr. Luca OLMI luca.olmi@inaf.it (INAF-OAA).

The deadline for sending applications is **November 20, 2023 – 11.59 p.m. (Italian time)**.

REQUIREMENTS

Master Degree in Astronomy or Physics or Engineering or equivalent qualification, awarded by public or private Universities, Institutions, Research Organizations or Centers or other qualified research bodies, both in Italy and abroad, in the topics relevant to the scientific and technological area and the research object of this call.

With the sole scope of admission to this selection procedure, the equivalence of educational qualifications obtained abroad will be verified by the "Selection Committee" as of Art. 7 in the Call, on the basis of documentation forwarded by the candidate as foreseen by Art. 3 of the "Call", provided that, in case the candidate is the winner of the aforesaid procedure, the Administration will acquire the results of the verification performed by the "Selection Committee" and will forward them together with the documentation listed in

Article 3, paragraph 2, letter a) or b) of the Decree n. 189 of the President of the Republic of 30 July 2009, plus the application of the candidate, to the Ministry of University and Research with the scope to acquire the opinion foreseen in Article 4, paragraph 2 of the aforementioned Decree.

PREFERENTIAL QUALIFICATIONS:

We are particularly interested in candidates with expertise in one or more of the following:

- Experience in the optical/electromagnetic design and analysis of microwave instrumentation;
- Knowledge of optical/EM design and simulation software;
- Experience in the field of Radio Astronomy;
- Basic knowledge in antenna theory.

APPLICATION PROCEDURE

Applications must be sent via e-mail to: inafoarcetri@pcert.postecert.it. In the email subject the applicant should make explicit reference to **“Bando PRIN MUR 2022 - Domanda per Assegno Progetto “Development of quasi-optical components based on metamaterials for novel cm- to mm-wave astronomical observations” DETERMINA n. 242/2023”**.

Applications must include the following Annexes **dated and signed**:

- the Application Form (Annex A);
- the self-certification Form (Annex B);

Up to two reference letters will be appreciated. Editors/contacts should address them by the deadline for application to: inafoarcetri@pcert.postecert.it, reporting in the object of the mail: “DETERMINA n. 242/2023” and the name of the candidate they are referred to.

The applicant also needs to attach:

- 1) a copy of a valid identification document;
- 2) a curriculum vitae (**dated and signed**);
- 3) **if awarded outside Italy**, copy of academic qualifications and also transcripts in case of Master Degree;
- 4) a complete list of relevant publications, dated and signed, which should contain all details: title, journals, years of publication, lists of authors, and web addresses on which they can be viewed.
- 5) any other work or publication the applicant deems useful;
- 6) a list of all submitted documents.

Incomplete or unsigned applications will be rejected.