

INAF



ISTITUTO NAZIONALE DI ASTROFISICA
OSSERVATORIO ASTROFISICO DI CATANIA

CALL for APPLICATIONS

(Determina Direttoriale No. 505/2022)

Public competition, based on qualification and interview to award a fellowship on "**Application of technologies for the development of the Telescope Manager Specification System (TMSS) software for LOFAR low frequency radio telescope**" at INAF – Osservatorio Astrofisico di Catania

The fellowship is not intended to cover specific personnel needs of the Institute or of the project itself, but it offers the opportunity of undertaking research activity within the project to those candidates wishing to acquire knowledge and skills for their professional advancement. Besides, the research fellowship offers the fellow the opportunity of professional growth by pursuing her/his scientific or technological research goals within a highly qualified environment.

Art. 1 Research project

A public selection based on qualifications and interview, is open to award one-year fellowship, possibly extendable provided the financial funding, under the “LOFAR” project.

The purpose of this call is to enable qualified candidates, with an adequate scientific curriculum, to develop the research entitled "Application of technologies for development of the Telescope Manager Specification System (TMSS) software for LOFAR low frequency radio telescope" at the INAF – Osservatorio Astrofisico di Catania.

The successful candidate will carry out the following activities, under the scientific supervision of Dr Ugo Becciani and Dr. Fabio Vitello:

Application of technologies for the development of modules, in collaborative environments (e.g. Scrum AGILE), of the Telescope Manager Specification System (TMSS) software for the administration, data management and scheduling of LOFAR observation tasks.

Art 2. Duration and fellowship amount

The fellowship is awarded for 12 months, with possible extension within the limit of 6 years, as set

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forth in art. 6 c. 2 bis of Legislative Decree 31 December 2014 n. 192, provided that the positive evaluation of the research and the financial availability occur.

The expected date of the fellowship start is 1st March 2023.

The gross annual amount of the fellowship, paid in 12 postponed instalments, is Euro **26,000**

This amount is net of burdens to be charged to INAF - Osservatorio Astrofisico di Catania, social charges, and includes the social security tax charged to the fellow.

Italian tax and social security rules will be applied. Grants for research activities are subject to:

article 4 of Law 13 August 1984, n. 476 (concerning tax);

article 2, paragraph 26 and successive

clauses, of Law 8 August 1995 n. 335 and successive modifications (regarding social security);

Labour and Social Security Ministerial decree of 12 July 2007, published in the G.U. n. 247 dated 23 October 2007 (regarding obligatory suspension from work during maternity);

art. 1, paragraph 78, of Law 27 December 2006, n. 296, and successive modifications (regarding sick leave).

During the period of mandatory maternity leave the allowance paid by INPS (Italian National Institute for Social Security) is supplemented by INAF up to the total amount of the grant. The length of period of mandatory maternity leave suspends the fellowship, which will start again after the maternity leave. The fellow will be requested to take out an accident insurance for the duration of the fellowship.

Art.3 Eligibility

Candidates from both the European Community and non-European countries having obtained a Master degree either in Physics, Astronomy, Astrophysics, Computer Science or engineering are eligible.

The skills and the experiences in the topics listed in art. 1 must be described in the CV and proven with attached appropriate documents.

For the sole purpose of admission to this competition, the qualifications obtained in a foreign state will be ascertained by the “Board of evaluation” on the basis of the documents provided by the candidates.

Applicants in possession of a Master Degree obtained in any European or non-European institute are required to expressly declare whether it has been declared “equivalent” to an Italian Master Degree according to the Italian legislation.

In the absence of the abovementioned declaration the candidate is required to attach to the application form either the copy of the master degree certificate or, alternatively, any other document certifying the qualification obtained, the exams taken and the final evaluation (i.e. marks when applicable), in order to allow the board to acquire all the elements needed to ascertain the equivalence of the master degree possessed by the candidate to one of those required for the admission to the present Call.



Non-European citizens, who do not hold the right of residence or of permanent residence, in order to prove the possession of the requirements referred to in par. 1, are required to attach the certificates issued by the competent authority of the foreign State to which they belong, together with the translation into Italian authenticated by the Italian consular authority.

The requirements for participating to the competition must be met on the deadline for submitting applications.

Art. 4 Ineligibility and incompatibility with other funding

Full professors, associate professors and researchers in Italian universities and employees of INAF or Italian University or research public institutions are all excluded from the competition.

Research grants may be assigned to personnel employed at public institutions other than those listed in the previous paragraph, provided they are on leave and do not receive any grant from their employer for the entire period of the contract.

During the duration of the fellowship, the grant holder cannot enroll in any academic course giving access to a doctorate, Phd programmes, or any other academic course.

The grant cannot be held contemporarily with whatever fellowships, except those awarded with the aim of supporting the training or research activity of the fellow during a period spent abroad.

Full-time or part-time job, cannot be carried out during the duration of the fellowship, while limited self-employed temporary job is compatible with the grant, provided that the job commitment does not compromise the research activity carried out for INAF.

In this case the authorization of the director is required.

Retired people are not eligible for Research fellowship.

Any person who has hold Research fellowships under article 22 of Italian Law 240/2010 (namely Assegno di Ricerca) for a total period exceeding six years, are ineligible for the competition. The above period does not include extensions or periods in which the grant has been held in coincidence with doctoral studies up to the maximum time limit of the course and the periods of maternity leave or sick leave, in accordance with current legislation.

Research grants cannot be awarded to those who have signed contracts, pursuant to Art. 22 (Research grants) and Art. 24 (Temporary research positions) of Law n. 240 dated 30 December 2010, with other universities and/or other Italian public institutions, whose duration together with that of the contract outlined in this call for applications, exceeds 12 years, even non-continuous, as set out in Art. 22, comma 9 of the cited Law; maternity leave and sick leave are not taken into consideration when calculating the



time limit.

Art.5 Application process

Applications, with attached CV and any document or publication deemed useful for the purposes of this competition must be submitted, in Italian or in English, filling the attached forms (Annexes A, and B, the latter only for EU citizens) exclusively via mail at the following PEC address: inafoacatania@pcert.postecert.it and must **arrive not later than h. 13:00 (local time) of 18 January 2023**.

Late arrival will not be considered.

Please quote “Assegno di Professionalizzazione LOFAR” in the subject of the e-mail.

For Italian participants: the forwarding will be valid only if the applicant sends the application form from his/her own PEC email box.

For European and non-European participants: the application form must be sent to the PEC address: inafoacatania@pcert.postecert.it from his/her email address.

The forwarding time and date are certified by the IT system.

The applicant must clearly and precisely state in the application form, under his/her own responsibility:

1. name(s) and surname,
2. date and place of birth,
3. nationality, Italian tax code (if any),
4. place of residence and address for correspondence and email address if available or PEC
5. the possession of either a Master degree in one of the following fields, Physics, Astronomy, Astrophysics, Computer Science or engineering the University which awarded the Master degree and the obtained marks (if attributed). For qualifications obtained abroad please refer to Art. 3
6. to enjoy civil and political rights
7. not to have reported convictions, or ongoing pending convictions (if not, please specify it)
8. titles of any other qualifications awarded (e.g. specialization diplomas, attendance certificates for post-graduate specialization courses held in Italy or abroad, documented research, under contract, conducted at public or private bodies, scholarships or appointments, both in Italy and abroad);
9. not to hold scholarships, research grants or contracts or to be willing to terminate them in case of successful evaluation,
10. that s/he will communicate promptly any changes in the positions referred to in the application as well as changes to the residence and contact details;
11. that s/he has read and understood the regulations governing the call for applications.

The lack of any of the above-mentioned declarations causes the exclusion from the selection procedure for incomplete application.



The following documents have to be submitted:

1. Annex A “Application form” signed and dated;
2. Annex B “Self-declaration” (only for EU citizens)
 - i. that the copies of the master thesis, publications or any other document attached to the application are compliant to the original versions;*
 - ii. that the applicant holds a Master Degree in Physics, Astronomy, Astrophysics, Computer Science or engineering awarded by a foreign University*
 - iii. any other degree or certificate of schools and specialization course he/she has taken in Italy or abroad and/or any contract he/she has been assigned in the form of fellowship by Italian or foreign research institutions or Universities, and/or any other contract or work experience;*
3. Master thesis;
4. For non-EU citizens residing outside Italy: suitably certified copies of academic qualifications obtained outside Italy, complete with an indication, if applicable, of the examinations taken, relative marks and course duration;
5. Only if the qualification has not been deemed valid for Italian law: request of validity for the sole purposes of participation in the competition together with mentioned declarations (Annex A);
6. “Curriculum vitae”, signed and dated by the applicant, providing evidence of qualifications, professional experience and the skills required to carry out the research and including a list, if applicable, of grants and fellowships held in the past and a statement of research interests;
7. copy of a valid identity document (ID card or passport);
8. List of publications;
9. PDF copies of any document deemed useful for the evaluation, e.g. post-graduate diplomas, certificate of attendance at post-graduate courses, schools, conferences scholarships, or research contracts
10. List of documents attached.

For selection purposes:

- EU citizens shall directly state any academic qualifications in the application forms (Annexes A and B)
- non-EU citizens residing outside Italy, together with ANNEX A, must attach suitably certified copies of academic qualifications obtained outside European countries, together complete with the record of the examinations taken, relative marks and course duration. The qualifications must be translated into Italian and authenticated by the Italian consular authority.

Art. 6 Causes of exclusion from the competition

Applicants are conditionally admitted to the selection and may – at any time – be notified of exclusion



from the selection procedure for the following reasons:

- Applications arrived after the deadline mentioned above or
- Applications with incomplete documentation
- unsigned application form, curriculum or declarations
- Applications lacking of requirements listed in art. 3
- Applications lacking of ID
- Applications with false declarations or false documents will not be considered.

Art.7 Board of evaluation

The board of evaluation, made of three members and a secretary, is appointed, ensuring an adequate balance of gender, by the Director of INAF-Osservatorio Astrofisico di Catania.

Art 8 The selection process

The selection is based on qualifications possibly integrated by an interview (which can also be done remotely).

The Selection Committee can establish a short list of the eligible applicants to be interviewed, on the basis of qualifications and documented experience in scientific or technological activities on the specific subject of the research fellowship. All the stages of the selection procedure can be performed also using electronic devices for the communications.

The assessment of the CV and of the qualifications precedes any interview and will be made on the basis the documents attached, their relevance to the scientific/technological research programme and on possible possession of one or more of the preferential titles.

The total ranking score is 100 points, 40 points are the maximum score for qualifications and 60 points are the maximum score for the interview.

The candidate must obtain a minimum score of 24 points for qualifications to be eligible.

The maximum of 60 points reserved for the evaluation of the CV and qualifications are assigned as following:

1. Curriculum vitae et studiorum, up to a maximum of 15 points;
2. Master Degree thesis up to a maximum of 5 points;
3. Master grade, up to a maximum of 10 points;
4. Documented experiences (internships, fellowships, contracts...) relevant to the activity of the call up to a maximum of 5 points;
5. Other qualifications (additional qualifications, foreign language certificates, publications, scholarships...) up to a maximum of 5 points

Applicants selected for the interview will be informed with a minimum of 15-day notice by e-mail, containing the individual qualifications score.



The interview will be aimed at verifying the applicant's specific experience and will focus on the topics of the research project:

Development of software in collaborative environments (i.e. Scrum AGILE);
Knowledge of programming languages used for the development of TMSS (Python, JavaScript)
Knowledge of CI/CD and DevOps (GitLab);
Knowledge of Django e Django Rest Framework;
Knowledge of Unit testing, pair programming and other XP methods

Up to 40 points will be assigned to the interview.

Applicants are expected to get the minimum score of 24 points in the interview to be eligible.

At the end of the selection process the board of evaluation will draw up the ranked list.

Art. 9 Awarding of the fellowship

The highest ranked candidate will receive the written notification awarding of the research fellowship in response to which the successful applicant is required to send a formal declaration of acceptance of the research grant. The declaration will also state that s/he is not subject to any of the exclusion conditions listed in article 4 of this Call.

If the candidate does not provide the declaration of acceptance within 10 days from the date of the notification, s/he will lose her/his entitlement to the research fellowship, which can be awarded to the next ranked candidate.

In the event that the winner of the present Call is in possession of a qualification obtained abroad which has not been declared equivalent to one of the qualifications required by art. 3 par 1 of the present Call, the administration of the Catania Astrophysical Observatory, will transmit the evaluation statement provided by the Board, together with the documents listed in art. 2 par. 2 D.P.R. 189/2009 acquired to the Ministry of University and Research to finalize the equivalence of the qualification.

Before the start of the research fellowship, the successful applicant is requested to take out an insurance against accidents at work, valid for the duration of the fellowship. As for third party liability risks the fellow will be covered by the insurance policy drawn out by INAF.

If the fellow is employed by a public or private employer, before the start of the fellowship, s/he is requested to submit a copy of employee leave, under penalty of the forfeiture of the fellowship.

The fellow will carry out the research activity in a flexible, autonomous, continuous way and in coordination with the scientific supervisors and the research team.

The fellow who after starting the research activity interrupts it for no valid reason or proves to be unsuitable for it, will lose the right to the fellowship, based on the advice of the scientific supervisors.

The contract will be terminated without notice if:



- the fellow does not carry on the research activity;
- the fellow incurs in the one of the incompatibility clauses stated in art. 4;
- the fellow lacks repeatedly to fulfil requirements or, according to the evaluation of the scientific supervisors, Dr. Ugo Becciani and Dr. Fabio Vitello, eventually shows evident lack of skills at the planned research activities;
- the fellow has presented false declarations or false documents.

The fellow can terminate the contract giving 30-day notice to the administrative office.

If the notice is not given, the amount corresponding to the missing days of notice will be withheld from the paycheck, or directly reimbursed by the fellow.

Under no circumstances the fellowship implies a subordinate employment relationship or gives right to access to permanent INAF staff positions.

Art.10 Evaluation of research activity

Before the expiration of the contract, the fellow will submit a detailed report, describing the progresses in the research topic. Any possible extension of the contract will be based on the positive evaluation of the report.

Art. 11 Information under articles 13 and 14 G.D.P.R. 2016/679

1. Pursuant to Article 13 of the "**Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC**" ("**General Data Protection Regulation**"), the National Institute for Astrophysics, acting as data controller, hereby informs that the personal data of applicants will be processed exclusively for the purposes connected to the aforementioned procedure by INAF personnel who, under the direct authority of the controller, are authorized to process personal data.
2. The personal data shall be processed even through automated means, also in case of communication to third parties.
3. The provision of such data is necessary to verify the participation requirements and failure to indicate them may preclude such verification.
4. Pursuant to Articles 15-21 of the "**General Data Protection Regulation**" the applicants can require anytime the access to his/her personal data, the rectification and correction of his/her personal data and/or, where possible, the erasure of his/her personal data and/or the limitation of his/her data processing and the opposition of his/her data processing.
5. Applicants can exercise the abovementioned rights by addressing to the Data Protection Officer of the National Institute of Astrophysics at the following addresses:
 - a) Viale del Parco Mellini, 84 - 00136 Rome (registered letter);
 - b) rpd@inaf.it (Email);
 - c) rpd-inaf@legalmail.it (Certified mail).



Art. 12 Call advertisement

The present call will be advertised on the website of the INAF-Osservatorio Astrofisico di Catania. Moreover, it will be sent to the Scientific Director of INAF for publication on INAF and MIUR websites. For further scientific information about the position and planned activities, contact the Scientific Responsibles, dr. Ugo Becciani (ugo.becciani@inaf.it) and dr. Fabio Vitello (Fabio.vitello@inaf.it) or further administrative information contact Dr. Daniela Recupero (email: daniela.recupero@inaf.it). For what not explicitly mentioned in this call, please refer to the Italian Call which contains detailed information on the laws and regulations in force which rule Italian public selection processes.

Catania, 19 dicembre 2022

Director
Dr. Isabella Pagano