

## ISTITUTO NAZIONALE DI ASTROFISICA NATIONAL INSTITUTE FOR ASTROPHYSICS





#### **DECRETO N. 26/2019**

Selection procedure based on qualification and possible interview for one postdoctoral research position entitled Support for the PSF-Recontruction tool for MICADO@ELT.

#### THE DIRECTOR

TAKING INTO ACCOUNT the INAF Statute, approved and effective as of 2018, September 24; TAKING INTO ACCOUNT the INAF "Disciplinare di organizzazione e funzionamento (DOF)", approved by CDA, decreto # 44, date 21.06.2012;

TAKING INTO ACCOUNT Italian Law n. 240, 30 Dec 2010, and its art. 22;

TAKING INTO ACCOUNT Italian Law n. 11, 27 Feb 2015, and its art. 6 c 2-bis;

TAKING INTO ACCOUNT DM M.I.U.R.9.3.2011, and its art. n. 102

TAKING INTO ACCOUNT t the INAF "Personnel Rules and Regulations";

TAKING INTO ACCOUNT the request presented by Dr. Benedetta Vulcani for opening the procedure for awarding a research fellowship of 12 months (possibly renewable) entitled "Support for the PSF-reconstruction tool for MICADO@ELT";

GIVEN that the position is granted by the funds of Osservatorio Astronomico di Padova, project "MICADO prestazioni e simulazioni";

GIVEN the financial coverage is granted by the funds of Osservatorio Astronomico di Padova, Fun. 1.05.02.17 "MICADO prestazioni e simulazioni", cap 1.01.01.01.009 "Assegni di ricerca" del Centro di costo 1.03 (INAF-Osservatorio astronomico di Padova);

TAKING INTO ACCOUNT the clearance of the INAF ticket service on 02/07/2019 (ticket n.684362);

#### DECREES:

## Art. 1 - Research Project

A selection based on titles and qualifications, possibly integrated by an interview, is open to award one PostDoc research position, "Assegno di Ricerca" entitled "**Support for the PSF-Reconstruction tool for MICADO@ELT**".

The position offered provides an opportunity to carry out scientific or technological research in a fostering environment to those candidates that deem it useful for their professional development. The position is aimed to carry out the project described, and does not refer to needs of permanent personnel for INAF or for the project itself.

The appointee will work in the group in Padova involved in the development of the Point Spread Function Reconstruction (PSF-R) for MICADO. MICADO (Multi-Adaptive Optics Imaging CamerA for Deep Observations) is one of the first-light instruments for the Extremely Large Telescope (ELT) and takes the Adaptive Optics technique to the next level. It will be the first dedicated imaging camera for the Extremely Large Telescope (ELT) and works with the multi-conjugate adaptive optics module, MAORY. The appointee will focus on the analysis of simulations run with the intent of comprehending the effect of the Adaptive Optics effects on the PSF quality. They will also evaluate the impact of the PSF-R on science, by exploring some key scientific cases.

The appointee will join the large international MICADO consortium, actively taking part to all the activities.

Prospective candidates are encouraged to contact Dr. Benedetta Vulcani (benedetta.vulcani@inaf.it) for additional information.

The selection is open to Italian and foreign citizens meeting the following minimum requirements:

1. A Ph.D. degree in either Engineering, Physics, Computer Science or Astronomy – or an equivalent degree – issued by an Italian or a foreign advanced studies institute or university;

or, alternatively

2. A masters degree in either Engineering, Physics, Computer Science or Astronomy – or an equivalent degree, including the Italian university degree obtained under the "vecchio ordinamento" – awarded by an Italian or a foreign advanced studies institute or university, which would entitle the applicant to the enrollment in a PhD programme; *followed by* at least three years of documented experience in scientific or technological activities (including years spent as a Ph.D. student).

The requirements need to be obtained within the deadline of the application.

### Art. 3 – Application procedure

Applications, dated and signed by the applicant, must be submitted in English or Italian via email to the following email address: benedetta.vulcani@inaf.it. The e-mail subject should indicate the position which is being applied for ("Post doc position - D.D. 26/2019").

Applications must be submitted by September 10, 2019. Late submissions will not be considered.

INAF accepts no responsibility for the loss of applications or documents, due to the applicant having provided incorrect contact details or having failed or delayed in notifying changes of these details, or to problems with postal delivery not due to INAF.

The applicant must include in the application the following documents:

- 1. Complete Application form (annex 1), signed and dated,
- 2. Curriculum vitae, signed and dated by the applicant, detailing on past experience on the subject of this fellowship;
- 3. Statement of past research (max 2 pages);
- 4. List of publications;
- 5. List of any other title deemed relevant for the application;
- 6. Copy of the PhD certificate or of equivalent foreign academic qualification (only for foreigners applicant);
- 7. List of all the submitted documents;
- 8. Declaration (annex 2) where the applicant must state clearly and precisely, under his/her own responsibility:
  - name(s) and surname, date and place of birth, nationality, place of residence and address for correspondence;
  - that he/she satisfies all the requirements described in article 2 of this Call;
  - that he/she is aware of and is not ineligible under any of the restrictions described in article 4 of this Call.

The declaration must be **signed and dated**. A **copy of valid identity documen**t need to be enclosed. The lack of any of the above mentioned declarations will determine the exclusion from the selection procedure for incomplete application.

9. At least one reference letter. Letters need to be sent **by September 10, 2019** via e-mail to the following address: benedetta.vulcani@inaf.it.

In case he/she is awarded the post-doctoral fellowship, the successful candidate will have to provide the INAF-OA Padova administration, before taking up the position, with a copy of the PhD certificate or of equivalent foreign academic qualification.

## Art. 4 - Ineligibility and incompatibility with other funding

The Research fellowship cannot be held either by INAF employees holding both permanent and non-permanent contracts, nor by regular employees of Institutes listed in article 22, paragraph 1 of Italian Law n. 240/2010. Fellowship holders are not allowed to enroll in a "Laurea Specialistica", or "Laurea Magistrale" (Master Level) degrees, or to enter a PhD program covered by a separate fellowship. For employees of the Italian Public Administration, a compulsory unpaid leave of absence is foreseen.

The fellowship cannot be held simultaneously with other fellowships of whatever kind, except those awarded with the aim of integrating the training or research activity of the fellowship holder through a period spent abroad. Aggregation of income from working activities, also part-time, carried out continuously is not accepted. Instead, limited self-employed occasional work is compatible with the fellowship, only if this is not prejudicial to the research activity carried out for INAF. This must be authorized in advance by the Director of INAF – OA Padova.

When formally accepting the fellowship, the successful candidate will issue a declaration of absence of inadmissible simultaneous fellowships.

#### Art. 5 - Duration of the Research fellowship

The Research fellowship is initially awarded for 12 months and can be renewed depending on funding availability and project needs. In accordance with the Italian Law n. 240/2010 the total duration of the "Assegni di Ricerca" cannot in any case exceed six years (excluding periods of maternity leave or sick leave, in accordance with current legislation).

#### Art. 6 - Host Institution

The post doc will carry out the research at the Padova premises of INAF Osservatorio Astronomico di Padova in collaboration with Dr. Benedetta Vulcani. During this year the successful applicant may spend some time visiting other research institutions in Italy or abroad, and he/she will be reimbursed according to the INAF rules as in "Manuale per il trattamento delle spese di missione".

#### Art. 7 - Salary

The gross yearly salary for this position will be 30,000.00 (Thirty—thousand/00) Euro. This amount is net of burdens to be charged to INAF – OA Padova and will be paid in deferred monthly installments. Applicable fiscal rules are the provisions of art. n. 4 of Italian law n. 476/1984 and subsequent modifications and integrations. Applicable social security rules are art. n. 2, paragraph 26 and following paragraphs of the Italian Law n. 335/1995 and subsequent modifications and integrations. Applicable rules for obligatory maternity leave are provided in the Decree of the Italian Ministry of Labour and Social Security dated 12 July 2007, published in the "Gazzetta Ufficiale" n. 247, October 23rd 2007. Applicable rules for sick leave are provided by art. n. 1, paragraph n. 788 of Italian law n. 296, December 27 2006, and subsequent modifications.

During the period of obligatory maternity leave, the allowance paid by INPS (Italian National Institute for Social Security) according to art. n. 5 of the above Decree dated 12 July 2007 is supplemented by INAF up to the total amount of the fellowship. The period of obligatory maternity leave will not contribute to the duration of the fellowship foreseen by the contract.

## Art. 8 - Selection Committee

The selection will be performed by a Selection Committee appointed by the Director of INAF- OA Padova.

## Art. 9 - Selection procedure and evaluation

The selection is based on qualifications, possibly integrated by an interview. The Selection Committee can establish a short list of the eligible applicants to be interviewed, on the basis of titles and qualifications and documented experience in the scientific activities on the specific subject of the research fellowship. If approved by all members of the Committee, the interviews can be performed via video-conference, to ease the procedure for foreign candidate and reduce costs. At the interview, applicants must exhibit their identity documents unless the interview is being carried out remotely via electronic devices. In the latter case the Selection Committee verifies the applicant's identity.

Applicants selected for the interview will be summoned by email.

#### **Art. 10 – Evaluation**

Evaluation will be based on qualifications and relevance. Applications will be further evaluated on the basis of the following selection criteria:

- Experience of research at research institutes and universities.
- Motivation and capability to contribute to the project
- The ability to work efficiently within a team and to obtain results in an independent way.
- Good programming skills and a good level of English language (oral and written).

Experience in dealing with and interpreting photometric data, knowledge of adaptive optics and knowledge of at least one programming language (C, Python..) will be a plus.

The Selection Committee can establish a short list of the eligible applicants to be interviewed. The total ranking score is 100 points: a maximum of 70 for titles and qualifications, and a maximum of 30 for the interview. At the conclusion of the selection procedure the Selection Committee will produce a ranked list.

The minimum score for admission to the possible interview for an applicant to be awarded the position will be decided by the Committee.

The approval decree of the selection procedure and the ranked list will be published on INAF- OA Padova web site: http://www.oapd.inaf.it.

#### Art. 11 - Awarding of the fellowship

The highest-ranked candidate will receive a written notification with an offer of the research fellowship, which will be anticipated by e-mail to assure a speedy process. Within 10 days from receipt of the formal notification of the award she/he must provide a formal declaration of acceptance of the fellowship, or of withdrawal. The declaration can also be anticipated by electronic mail. In case no declaration is received, the candidate is considered as withdrawn and thus excluded. The committee can then move down the ranking and repeat the procedure with the second-ranked candidate, and so on, until the fellowship is accepted.

Under no circumstances the signing of the contract starts a subordinate employment relationship or ensures any rights to access to permanent INAF staff positions.

The appointee will be required to personally provide for her/his own health insurance - if she/he does not already benefits from the health services according to the law n. 833/1978 - as well as insurance against risks from accidents at work, without any charge for the INAF-Astronomical Observatory of Padua. He/she must also notify the Administration in writing, attaching a copy of the policy. Regarding the risks of civil responsibility towards third parties, the researcher will be covered by an insurance policy stipulated by INAF. The policy does not cover the civil liability of the researcher towards INAF.

The appointee will also have to communicate as soon as possible to the Administration the details of her/his bank / postal account at an Italian bank or post office, registered personally and exclusively to the appointee. The salary will be paid on this account monthly. In the absence of such indication, the Administration is not able to technically guarantee the credit at the same time as the other checks issued by the Structure. The operation is in no way supported by INAF.

If for any reasons the current call will be rescinded, INAF has the right to nullify the contract.

Dr. Benedetta Vulcani will supervise all the activities of the appointee.

#### Art. 12 - Starting date and fellowship obligations

Expected starting date of the research fellowship is preferably on **1 November 2019.** The holder of the position:

- a) will start the research activity on due date, as for the contract with INAF- OA Padova, unless prevented by force majeure or exceptional circumstances, of which the Director of INAF OA Padova must be timely informed;
- b) will carry out her/his research activities at INAF-Padova under the supervision of the project, Dr. Benedetta Vulcani, who will also monitor the researchers' progress;
- c) is required to issue periodical activity reports as established in the contract. The activity reports will be subject to approval by the project supervisor. Approval failing, duly justified by the supervisor, will give INAF OA Padova the right to terminate the contract;
- d) is required to send a written note in case of withdrawal, with at least 30 days notice, otherwise INAF OA Padova will be entitled to retain or request the reimbursement of the salary amount corresponding to the notice time-span she/he has failed to send;
- e) at the end of the fellowship, is required to send to the Director of the Observatory a report summarising the activities carried out during the fellowship. The report must be signed by the supervisor.

The holder of the fellowship who fails in carrying out her/his regular research activity, without producing justified reasons or lacks repeatedly to fulfill requirements or, according to the evaluation of the scientist in charge, eventually shows evident lack of skills at the planned research activities, will incur in the termination of the contract.

Temporary suspensions of the research fellowship are due in case of obligatory maternity leave or in case of illness lasting longer than one month or to any other serious reason. The reasons for suspending the research fellowship must be proved and certified, and promptly sent to the Director of INAF- OA Padova.

#### Art. 13 - Advertisement

The present call will also be published, according with art. 8 of INAF rules and regulations on "Assegni di Ricerca", on the following web sites: http://www.inaf.it and http://www.oapadova.inaf.it, on the web pages of the Ministero dell'Istruzione, dell'Università e della Ricerca (MIUR) and of European Union, according to the lines guides defined by MIUR.

## Art. 14 – Applicable regulation

INAF-OA Padova shall abide by provisions in force promoting equal opportunities for women and men, non-discrimination and respect of privacy in processing personal data.

For what not explicitly mentioned in this announcement, INAF-OA Padova shall act in compliance with the regulations in force concerning Italian public selection procedures, when applicable by analogy.

## Art. 12 - Responsible Administrative Employee

The Responsible Person for this Job announcement processing is Dr. Andrea Busato, of INAF- OA Padova.

Padova, 2019, July 04th

Il Direttore (Dott. Roberto Ragazzoni)

# **APPLICATION FORM**

Al Direttore dell'INAF-Osservatorio Astronomico di Padova Vicolo dell'Osservatorio, 5 35122 Padova

# I, THE UNDERSIGNED,

SinceTo	Institution	Duration
that I will give due no	any communication relating to the selection at the following tice of any change of address:	ing address and
Address (number/stre	eet/city/postal code/Country):	
Email address:		
		•••••
	d to this form: <b>and dated</b> providing evidence of possession of the skills ing a list, if applicable of grants and fellowships hold in the	
	king tasks, research activities at public and private i	institutions and
<ul><li>4. Statement of research inter</li><li>5. Annex 2 signed and date</li><li>6. copy of a valid identity docu</li></ul>		cizens);
Date	Signature	

## **CURRICULUM VITAE**

#### I, THE UNDERSIGNED,

aware that false declarations are punishable by law under Article 76 of Presidential Decree no. 445 of 28th December 2000 and that this Administration will carry out random checks on the accuracy of the declarations made by candidates

## DECLARE UNDER MY OWN RESPONSIBILITY

and in accordance with Articles 46-47 of Presidential Decree no. 445 of 28th December 2000 ("SELF-EXECUTED CERTIFICATE AND SELF-EXECUTED AFFIDAVIT")

## THAT THE CONTENT OF THE ATTACHED "CURRICULUM VITAE" REPORTS TRUE STATEMENTS AND FACTS

The Undersigned declares his/her consensus for his/her personal data to be treated respecting the Italian Law "Decreto Legislativo" n. 196/2003 and subsequent modifications and integrations, exclusively to fulfill the procedures necessary for the Call, for which this statement is made.

Date	Signature
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