



**ISTITUTO NAZIONALE DI ASTROFISICA
OSSERVATORIO ASTROFISICO DI ARCETRI**

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**Decreto n. 23
Anno 2018**

Selection procedure based on qualification and possible interview for the awarding of one research fellowship, entitled: “High-angular resolution studies of the physics and chemistry of disks and jets around Sun-like stars: from the protostellar stage to planet formation”.

Category: A/Post-doc.

THE DIRECTOR OF INAF ASTROPHYSICAL OBSERVATORY OF ARCETRI

- Having seen** the Statute of the Istituto Nazionale di Astrofisica (INAF), adopted by INAF Administrative Council on 7 March 2011 and entered into force on 1 May 2011;
- in accordance with** Italian Law n. 240 dated 30 December 2010, Article 22;
- having seen** the INAF Regulations for the awarding of research fellowships approved by INAF Administrative Council on 22 June 2011, Resolution n. 06/11 and subsequent modifications and integrations;
- having seen** the guidelines for the awarding of research fellowships approved by INAF Administrative Council on 30 January 2018;
- having seen** the note of INAF Scientific Directorate, prot. nr. 673/2018;
- considering** it appropriate to issue an announcement of competition for the award of a research fellowship;
- given** the availability of funds from Ob. Fu. 1.05.01.88.02 GENESIS-SKA (ref. Claudio Codella) PRIN SKA CTA 2016 CUP C52F14000410001; Ob. Fu. 1.05.06.11 Premiale 2015 Progetto FRONTIERA (ref. Bacciotti) CUP C61I15000000001; Ob. Fu. 1.05.01.89.02 STARS in the CAOS (ref. Codella) Prin Miur 2015 CUP C52F16001190001.

Art. 1 – Research project

A selection based on qualifications, possibly integrated by an interview, is open to award one research fellowship, entitled: **“High-angular resolution studies of the physics and chemistry of disks and jets around Sun-like stars: from the protostellar stage to planet formation”.**

The candidate will analyse high angular resolution images at optical to millimetres wavelengths of jet-disk systems associated with Sun-like young stellar objects from the protostellar to the protoplanetary stage. Data collected using VLT-SPHERE, LBT LUCI-AO and LMIRCam, HST, NOEMA,



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ALMA, VLA from on-going large programs and standard projects will be used. The main goals are: (i) to investigate the properties of disk's structures (gaps, rings, spirals), and the morphological, kinematical, and physical properties of jets, as well as the possible connection between the retrieved properties and the presence of proto-planets; (ii) to characterise the chemical richness of disks and jets along the evolutionary phases leading to a formation of a Sun with its planetary system, from simple molecules to complex organics and precursors of prebiotic molecules; (iii) to investigate the correlation between disk and jet properties on a large statistical sample. Based on the performed analyses, the candidate will identify the most suitable targets for the future SKA, JWST, and EELT campaigns.

The activity will be carried out under the supervision of Dr. Linda Podio.

Art. 2 – Requirements

In order to participate in the selection, applicants must possess, under penalty of exclusion, by the deadline for application of the present position:

PhD degree in Astronomy or Physics awarded by an Italian university or by a foreign university

Moreover the time lapse occurring from the obtainment of the PhD and the deadline for application cannot be greater than 4 years and 9 months.

The following knowledge, skills and experience will be considered as preferential qualifications:

- Previous experience on the topics of the present call.

Art. 3 – Duration of the Research fellowship

The Research fellowship will have a duration of 27 months.

The scientific activity is expected to begin before the end of June 2018.

In any case, the exact initial date could be reasonably delayed if requested by the completion of administrative procedures and/or for the cases mentioned in the art. 10 of this call.

Art. 4 – Application procedure

Applications must be submitted in English as closed envelope by "Raccomandata A/R", authorized carrier (ex. DHL, FedEx, UPS, etc.) or, in person, at the Office Protocol to the address INAF-Osservatorio Astrofisico di Arcetri, Largo Enrico Fermi 5, 50125 Firenze (ITALY). Alternatively, the application can be submitted using PEC (Posta Elettronica Certificata: **no** ordinary e-mail) to the following PEC address: inafoarcetri@pcert.postecert.it.

The PEC account must be compulsory registered to the applicant's name, on penalty of exclusion from the present call.

Applications are to be submitted by and not after **midday (UT) on April 12th 2018**. Late deliveries will not be considered.

Applications which are not consistent with the attached forms (Annexes 1,2) or without the applicant's signatures will be excluded from the selection procedure.



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The application must be delivered reporting on the envelope or in the PEC subject **“Application for Postdoctoral Fellowship position at INAF-Arcetri – DD n. 23/2018”**.

Aware that false declarations are punishable by law and that the Administration will carry out random checks on their accuracy, the applicant must state clearly and precisely in the application, under his/her own responsibility:

- name(s) and surname, date and place of birth, nationality, place of residence and address for correspondence;
- that s/he satisfies all the requirements described in article 2 of this Call, in particular the holding of the degrees;
- that s/he is aware of and is not ineligible under any of the restrictions described in article 5 of this Call.

In the absence of any of the above declarations, the applicant will be excluded from the selection procedure.

For selection purposes the applicants:

- shall directly state any academic qualifications in the application form (Annex 1)
- if successful, candidates with non-Italian academic qualifications (for example, applicants residing outside Italy or Italian citizens with degrees outside Italy), must produce originals or suitably certified copies of these qualifications. Such documents must be **translated into English**.

Applications must include the following documents:

- Annex 1 “Application form”, **signed and dated** by the applicant;
- Annex 2 **signed and dated** by the applicant;
- copy of a valid identity document (ID card for EU-citizens or passport for non-EU citizens);
- “Curriculum vitae”, **signed and dated** by the applicant, providing evidence of possession of the titles 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;
- list of publications;
- any other qualification, working task, research activity for public and private institutions and publications that the applicant deems appropriate to submit.

Applications that are not consistent with the attached forms (Annex 1 and 2) or have not been signed by the applicant will be excluded from the selection procedure.

Applicants are admitted for selection with reservation and may – at any time – be excluded from the selection procedure for the following reasons:

- submission of the application after the deadline;
- incomplete and/or unsigned application forms;
- failure to sign the curriculum vitae;
- lack of the copy of a valid identity document;
- lack of the requirements indicated in paragraph 2.



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Should the reasons for exclusion be ascertained after completion of the selection procedure the applicant will lose any right deriving from participation in the selection procedure; providing any false statement or document will also be prevented from participation.

INAF accepts no responsibility for lost applications or documents where this is due to the applicant having provided incorrect contact details or having failed or delayed in notifying any changes to these details.

Art. 5 – Ineligibility and incompatibility with other funding

The grant cannot be held by full professors, associate professors and research staff in Italian universities or by employees of Italian research public institutions.

The grant cannot be held at the same time with attendance at academic courses as those that formally give access to a doctorate, as well as with attendance at PhD courses with fellowship.

The grant 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 grant, 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-Osservatorio Astrofisico di Arcetri.

Retired persons are not eligible for Research fellowship.

The candidate who does not satisfy the provision of co.9 of article 22 of the Italian Law 240/2010 is excluded from the selection.

Upon formally accepting the grant the successful applicant will issue a declaration that none of the above exclusions apply.

Art. 6 – Host Institution

The fellow will carry out the research at INAF-Osservatorio Astrofisico di Arcetri, Largo Enrico Fermi 5, I - 50125 Firenze (Italy).

Art. 7 – Salary amount

The gross annual salary will be **28.000 (twenty-eight-thousand/00) Euro**. This amount is net of burdens to be charged to INAF-Osservatorio Astrofisico di Arcetri, social charges and health coverage and will be paid in deferred monthly instalments. The fellow will be requested to have a personal accidents insurance for the duration of the fellowship.

Italian fiscal and social security rules will be applied.

During the period of obligatory 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 period of obligatory maternity leave will not contribute to the duration of the grant foreseen by the contract.

Art. 8 – Selection Committee and selection procedure

The selection will be performed by a Selection Committee appointed by the Director of INAF-Osservatorio Astrofisico di Arcetri and is composed of three members, including the scientist in charge of the project, Dr. Linda Podio.



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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 qualifications and documented experience in scientific or technological activities on the specific subject of the research fellowship.

Applicants selected for the interview will be summoned with 15 days notice, containing the individual score for qualifications.

The total ranking score is 100 points, of which 70 points is the maximum score for qualifications and 30 points is the maximum score for the interview.

At the end of the selection procedure the Selection Committee will draw up the ranked list.

The approval decree of the selection procedure and the ranked list will be published on the following website: <http://www.arcetri.astro.it>

Art. 9 – Awarding of the fellowship

The highest ranked candidate will receive written notification of award of the research fellowship. Within 10 days from receipt of the formal notification of the award she/he must provide a formal declaration of acceptance of the research grant. The declaration will also state that she/he is not subject to any of the exclusion conditions listed in article 5 of this Call.

If the candidate does not provide declaration of acceptance within a time limit of 10 days, she/he will surrender his/her entitlement to the research fellowship and it can be awarded to the next ranked candidate.

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

Art. 10 – Fellowship obligations

The holder of the fellowship:

will start the research activity at the date due as for the contract at INAF-Osservatorio Astrofisico di Arcetri, unless prevented by force majeure or exceptional circumstances, of which the Director of INAF-Arcetri must be timely informed;

will carry out her/his research activities under the supervision of the scientist in charge of the project, Dr Linda Podio, who will also monitor the fellow's progress;

is required to issue an activity reports every 12 months. The activity reports will be subject to approval from the scientist in charge of the project and will be transmitted to the Director of INAF-Osservatorio Astrofisico di Arcetri. Approval failing, duly reasoned by the scientist in charge, will give INAF-Osservatorio Astrofisico di Arcetri the right to terminate the contract;

is required to send a written note in case of withdrawal, with at least 30 days notice, otherwise the INAF-Osservatorio Astrofisico di Arcetri is entitled to retain or request the reimbursement of the salary amount corresponding to the notice time-span she/he has failed to send.

The holder of the fellowship who does not carry out her/his research activity regularly without producing justified reasons or lacks repeatedly to fulfil requirements or, according to the evaluation of the local coordinator of the activities, Dr. Linda Podio, eventually shows evident lack of skills at the planned research activities, will incur the termination of the contract.



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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-Osservatorio Astrofisico di Arcetri .

Art. 11 – Proceeding Responsible

The Responsible of this Call proceedings is Dr. Serena Donati (email: donati@arcetri.astro.it).

Art. 12 – Applicable regulation

The INAF-Osservatorio Astrofisico di Arcetri 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, the INAF-Osservatorio Astrofisico di Arcetri shall act in compliance with the regulations in force concerning Italian public selection procedures, when applicable by analogy.

Firenze, March 13th 2018

[The Director]
Dr. Maria Sofia Randich