INAF



Istituto Nazionale di Astrofisica Osservatorio Astronomico di Palermo Giuseppe S. Vaiana



D. D. n. 92/2013

SELECTION PROCEDURE BY QUALIFICATIONS AND POSSIBLE INTERVIEW FOR THE ASSIGNMENT OF N. 1 POST-DOC RESEARCH POSITION ENTITLED: "Filling the gap between Supernovae and Supernova remnants: model and current observations and simulations, and model predictions in view of future imaging X-ray observatories" CUP: C71J10000020005.

THTHE DIRECTOR

In accordance with Law n. 138 dated 4.6.2000 regarding the INAF reorganization;

In accordance with the "Provisions on INAF administration, accounts and contract activities" issued by Decree on 2.2.2004;

In accordance with the "Provisions on INAF personnel" issued by Decree on 2.2.2004;

In accordance with the "Procedural guidelines on INAF structure and functioning" approved with Decree n. 42/2012 by INAF Administrative Council on 21.6.2012;

In accordance with Legislative Decree n. 213 of 31.12.200, regarding the reorganization of the research institutions, which implements art. 1 of Law n. 165 of 27.9.2007;

In accordance with the INAF statute, issued by the INAF President with Decree n. 25 of 10.3.2011, and come into force on 1.5.2011;

In accordance with D.P.R. n. 445 of 28.12.200 regarding the administrative documentation;

In accordance with Law n. 183 of 12.11.2011 regarding certifications and self-certification declarations;

In accordance with Law n. 240 of 30.12.2010, in particular art. 22 on the reorganization of the research grant regulations;

In accordance with Decree n. 102 of 9.2.2011 by Ministero dell'Istruzione, dell'Università e della Ricerca Scientifica, fixing the minimum salary for post-doc research positions;

In accordance with the Provisions for the assignment of post-doc research positions approved by INAF Administrative Council on 22nd June 2011;

In accordance with the note issued by the Director of the INAF Department of Research Structures on 16.9.2011, ref. n. 5794/2011, regarding the publication of calls for post-doc research positions;

In accordance with the request by the scientist in charge, regarding the offer of one post-doc research position of one year duration, possibly to be extended for further three years, on "Filling the gap between Supernovae and Supernova remnants: model and current observations and simulations, and model predictions in view of future imaging X-ray observatories":

Considered that the grant will be funded with resources allocated to INAF - Osservatorio Astronomico di Palermo "Giuseppe S. Vaiana" as part of "MIUR Progetto 78" and "Progetto Sciortino" research projects;

Considered appropriate to issue the present call for the good of the above mentioned research work

DECREES

Art. 1- Research Project

Open call for the selection procedure on the basis of candidates' qualifications, possibly integrated by an interview, for the assignment of one Post-Doc research position of the duration of one year, renewable on an annual basis (subject to availability of funds and agreement by the scientific supervisor) entitled: "Filling the gap between Supernovae and Supernova remnants: model and current observations and simulations, and model predictions in view of future imaging X-ray observatories"

The research work will take place at INAF-Osservatorio Astronomico di Palermo "Giuseppe S. Vaiana", under the scientific supervision of Dr. Salvatore Sciortino.

According to the needs of the research activities, as determined by the scientific supervisor, the pos-doc could travel and work in other research centers; in those cases he will be liable to the mission reimbursment according to the INAF mission rules.

The activities to be carried out will consist in:

- modeling of a supernovae remnant evolution with particular emphasis on the physical phenomena at work in young supernovae remnants; synthesis of the X-ray emission with particular emphasis on the non-equlibrium ionization process that could be at work in those objects;
- development of diagnostics of the properties of plasma in a supernovae remnant and their relation with the properties of the progenitor star and of the related environment;
- X-ray observations of supernovae remnants and comparison with model predictions;
- models, simulations and predictions of emission from supernovae remnants in view of next-generation imaging X-ray observatories.

The post-doc will spend about 5% of its time in support of the publich outreach activities of the INAF - Osservatorio Astronomico di Palermo.

Art. 2 – Requirements for participation

Participation to the selection is allowed to Italian and foreign citizens holding the following mandatory minimum requirements:

- PhD degree in Physics, Astronomy or equivalent degree issued by an Italian (or foreign) Advanced Studies Institute or University.
- degree in Physics, Astronomy, issued according to either the previous or the new Italian University regulations ("specialistica" or "magistralis" degree), or equivalent degree issued by an Italian or foreign Advanced studies Institute or University, together with at least three years of documented experience in scientific or technological activities.

A significant and documented experience in the following fields will be considered a preferential qualification:

- Knowledge and experience in the modeling of the supernovae remnant evolution
- Knowlegde and experience of the simulation techniques of high-energy emission from optically thin plasma.
- Konowledge and esperience of the data analysis of supernovae remannt observation obtained with instrumentation in the X-ray bandpass (NASA/Chandra, ESA/XMM-Newton, JAXA/Suzaku, etc.)
- Good knowledge of the spoken and written English language.

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Art. 3 - Application

Applications are to be written on unstamped paper and must be consistent with the attached application form (Attachment 1), with the addition of the date and the signature of the candidate. Applications, to which the requested documentation must be attached, are to be submitted either by hand delivery to the Astronomical Observatory of Palermo or sent by express courier or by registered letter with acknowledgement of receipt. Applications must be addressed to the Director of INAF-Osservatorio Astronomico di Palermo, Piazza del Parlamento n. 1, 90134 Palermo, Italy. Applications must be submitted by **20 November 2013**.

On the application's envelope the following must be clearly quoted: applicant's name, family name and address, and the caption: "Filling the gap between Supernovae and Supernova remnants: model and current observations and simulations, and model predictions in view of future imaging X-ray observatories".

Incomplete applications will not be considered for the selection procedure.

Applications without the applicant's signature will be excluded from the selection procedure.

Applications which are not consistent with the attached form format will be excluded from the selection.

The following qualifications have to be attached to the application:

- 1. candidate's curriculum vitae et studiorum (CV), including a list of grants and fellowships held in the past, if applicable;
- 2. list of publications;
- 3. any other qualification or publication relevant to the candidate scientific experience and/or training
- 4. non-Italian citizens should attach copies of their University degrees inclusive of the list of exams and the degrees' final marks, or copies of the equivalent foreign degrees;
- 5. a list of qualifications and of all attached documents, in which the number of works and published papers is specified;
- 6. a personal declaration (valid as self-certification) that:
- copies of the submitted graduation written dissertation, publications or other qualifications are true and faithful copies of the originals;
- the candidate holds a University degree;
- the candidate holds a PhD degree, and holds any other specialization degree or certificate of attendance to post-degree specialization courses both in Italy or abroad, and the declaration concerning any research activities which were carried out at private or public institutes either under contracts, fellowships or grants both in Italy and abroad or any working tasks that the candidate deems appropriate to submit.

The above self-certification must be consistent with the attached form format (Attachment 2), dated and signed by the applicant, and a copy of a valid identity document must be attached. When using self-certification the candidate must list the submitted qualifications with details which may enable possible verification by the Observatory's Administrative Office. Alternatively, the candidate must submit original or authenticated copies of his/her qualifications.

Art. 4 – Incompatibility

Post-Doc research positions cannot be held by INAF employees holding both permanent and non-permanent contracts and by regular employees of Institutes listed in article 22, paragraph 1 of Law n. 240/2010.

The post-doc position cannot be held contemporarily with attendance at academic courses, "laurea specialistica" academic courses, and "laurea magistrale" academic courses, as well as

with attendance at PhD courses with fellowship. For employees of the Italian Public Administration (Italian State) compulsory unpaid leave of absence is foreseen.

The post-doc research contract cannot be held contemporarily 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 allowed. Instead, limited self-employed occasional work is compatible with the post-doc research position, only if this is not in contrast with or delays the research activity carried out for INAF. This must be authorized in advance by the Director of the Institute where most part of the research activity of the grant is carried out.

When formally accepting the post-doc research position, the successful candidate will issue a declaration of absence of inadmissible cumulating of grants/contracts/fellowships.

Art. 5 – Host institution and duration of the post-doc position

The post-doc position is for one year, with possible extension on an annual basis upon favourable opinion of the supervision of the project as well as funding availability.

In accordance with Law n. 240/2011 the duration of the post-doc research position, inclusive of possible renewal, cannot exceed four years, with the exclusion of the period in which such a position is held in coincidence with attendance to a PhD course.

Host institution of the post-doc research position is INAF - Osservatorio Astronomico di Palermo "Giuseppe S. Vaiana"

Art. 6 – Salary amount

The post-doc research position salary is worth 28,000.00 (twentyeight thousand) Euros gross per year. This amount is net of burdens to be charged to INAF - Osservatorio Astronomico di Palermo and will be paid in deferred monthly instalments.

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 Ministry of Labour and Social Security dated 12 July 2007, published in the "Gazzetta Ufficiale" n. 247 dated 23 October 2007. Applicable rules for sick leave are provided by art. n. 1, paragraph n. 788 of Italian law n. 296 dated 27 December 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 post-doc position salary. The period of obligatory maternity leave will not contribute to the duration of the post-doc position foreseen by the contract.

Art. 7 – Selection Committee

The selection of eligible candidates will be performed by a Selection Committee appointed by the Director of INAF- Osservatorio Astronomico di Palermo "Giuseppe S. Vaiana".

The Selection Committee is composed of three members from both Italian and foreign research staff, including also University staff, with expertise in the research field of the position offered in this announcement, and will include the scientific leader of the project. According to the law in force, the composition of the Selection Committee should comply with gender balance. The president of the Selection Committee is nominated in the appointment decree and is chosen

among the Committee members. In the decree the Selection Committee a Secretary is also appointed.

Art. 8 – Selection procedure

The selection is based on qualifications possibly integrated by an interview. To be admitted to the interview, candidates must exhibit their identity cards, or other document attesting their identities.

The total ranking score established by the Selection Committee is 100 points, of which 70/100 is the maximum score for qualifications and 30/100 is the maximum score for the interview. Evaluation criteria will be defined in advance, and qualifications will be evaluated before the possible interview.

The committe will evaluate the following scientific qualifications and research activities:

- Curriculum and studies with specific consideration of PhD, specialist qualifications, masters and post-graduated courses, held in Italy and abroad;
- Research and technology activity at public and/or private institutions in Italy and abroad (including tasks and participations to projects) closely connected to the research subject of the present selection;
- Publications on international journals connected to the research subject of the present selection

The Committee will fix the maximum scores which each title can be given, and the criteria by which titles are to be evaluated.

The Committee may make a shortlist of applicants eligible for the interview; in this case interview eligibility depends on obtaining a minimum score which will have been previously fixed by the Committee itself. Candidates with lower scores will not be included in the final ranking list.

Applicants selected for the interview will be summoned with 15 days' notice by registered letter with acknowledgement of receipt.

The ranking list and individual scores by the Selection Committee will be publicly notified by posting on the official Notice Board of INAF-Osservatorio Astronomico di Palermo "Giuseppe S. Vaiana".

The approval decree of the selection procedure and any other decrees relevant to the selection will be notified by posting on the Notice Board of the Observatory and on the website of the Observatory www.astropa.inaf.it/

In case of renunciation of the post-doc position winner, the position could be awarded to the next eligible candidate in the ranking list.

Art. 9 - Contract Formalization

Within 10 days from the receipt of the formal notification of the award, the successful candidate will provide a formal declaration of acceptance of the post-doc research position without reservation and under the conditions prescribed in the contract which shall be signed on the date and place established by the Observatory. The successful candidate will also declare that he/she is not subject to any of the exclusion conditions listed in Article n. 4 of this announcement.

Within the same time limit of ten days, in case of renunciation, the winner is bound to provide formal declaration of renunciation to the Astronomical Observatory of Palermo. 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 post-doc position holder is bound to draw up an insurance policy against accidents at

work prior to starting his/her research activities, otherwise revocation of the post-doc position is foreseen.

As for third-party civil liability, the post-doc position holder will be covered by insurance policy drawn up by INAF. The policy does not cover civil liability of the post-doc position holder towards INAF.

The post-doc position holder is bound to provide periodical activity reports. The reporting frequency will be established in the contract. The activity reports will be subject to approval from the scientific supervisor and will be transmitted to the Director of the Astronomical Observatory of Palermo. Approval failing, duly reasoned by the scientific supervisor, will give the Institute the right to terminate the contract.

In case of contract rescission, the post-doc position holder is bound to send a written communication with 30 day's notice. The notice starts from day 1 or day 16 of each month. In case of lack of notice, the Institute has the right to retain or request the reimbursement of the salary amount corresponding to the notice time-span which the post-doc position holder failed to communicate.

When the duration of the remaining, available part of the post-doc position is greater than 1 year, the next eligible applicant in the ranking list is entitled to receive the remaining amount of the grant salary, after drawing up the contract.

Art. 10 - Starting date and obligations

The starting date of the post-doc research contract is established by the Director of INAF-Astronomical Observatory of Palermo in the notice of summons for drawing up the contract. Expected starting date of the grant is 1st January 2014.

The post-doc position holder has to fulfil the following obligations:

- a) to sign in the first instance the contract ruling collaboration to the planned research activity project and to whatever else foreseen in it;
- b) to start research activity at the date due as for the contract at the seat of INAF-Astronomical Observatory of Palermo, unless prevented by motivated temporary hindrance, of which the Observatory must be timely informed;
- c) to carry out research activity for the whole duration of the grant regularly and continuously;
- d) to comply with the rules and regulations of the Observatory and with the directives of the Director and of the scientific leader of the project;
- e) to present periodical reports on research activity to the Director of the Observatory after approval from the scientific leader.

The post-doc position holder who, after having started the planned research activity, does not carry out his/her work regularly and without interruptions for the duration of the contract without producing justified reasons, or lacks repeatedly to fulfil requirements or, according to the evaluation of the scientific leader, eventually shows evident lack of skill at the planned research activity, will incur termination of the contract and consequent deprivation of the post-doc position after motivated decision of the Director.

The post-doc position holder will be informed of any possible start of administrative proceedings for terminating the contract, and he/she will be allowed to submit his/her own reasoned reply on the matter to the Director of the Observatory in writing.

The post-doc position holder will be informed by reasoned notice both in case the administrative proceedings are filed away without further consequence, and in case of actual decision to terminate the contract.

Temporary suspensions of the research contract are justified only if absence is due to pregnancy and post-natal leave, or to illness which lasts longer than one month, or to any other

serious reason. The reasons for suspending the research contract must be proved and certified, and promptly sent to the Observatory.

Art. 11 - Proceedings Responsible

In accordance with Art. 8, paragraph 3 of INAF Provisions on the assignment of post-doc research positions, dr. Filippo Salemi is the responsible of the competition proceedings relevant to this competition announcement.

Art. 12 - Publicity

This competition announcement shall be electronically forwarded to Astronomical and Astrophysical Observatories and to scientific institutes in the field of interest. The announcement will be posted on the websites of INAF (www.inaf.it), of the Astronomical Observatory of Palermo (www.astropa.inaf.it), of the Italian Ministry of Education, University and Research and of the European Union according to MIUR guidelines.

Art. 13 – Applicable regulation

The Astronomical Observatory 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 Observatory shall act in compliance with the regulations in force concerning public selection procedures, when applicable by analogy.

Palermo, 16 october 2013

THE DIRECTOR: Prof. Giuseppina Micela

ATTACHMENT 1

APPLICATION FORM FORMAT FOR PARTICIPATION IN THE SELECTION

The Director
INAF - Osservatorio Astronomico di Palermo"Giuseppe S. Vaiana"
Piazza del Parlamento,
n. 1
90134
PALERMO

The undersigned (Forename(s))(Surname)
Place of birth (Town/State)
Date of birth (dd/mm/yy)
Permanent residence address (number/street/town/postal code/Country):, National Insurance
Number
Hereby applies to participate in the selection for the appointment of one post-doc research position entitled: "Filling the gap between Supernovae and Supernova remnants: model and current observations and simulations, and model predictions in view of future imaging X-ray observatories".
Under her/his personal responsibility the undersigned declares:
a) her/his citizenship is:;
b) to enjoy civil and political rights of the State of which she/he holds citizenship;
c) not to have been in the past or not to be at present under any penal sentence (if liable, please
specify);
d) to hold the following educational qualifications:
e) research contracts/grants and/or fellowships held in the past (indicate length and host Institution):
;
f) to be presently holding the following research contract/grant or fellowship (indicate length and host Institution):
The following documents are attached:
1. curriculum vitae et studiorum, in which also past research contract/grants or fellowships are listed;
2. list of publications available on the web;
3. any work or publications which is not available on the web, which might be useful for qualifying the
scientific curriculum;
4. foreign citizens are requested to attach copy of the University degree/academic qualification certificate inclusive of the list of individual exams and the final score, or copy of the equivalent foreign degree certificate, and copy of the PhD certificate or of the equivalent foreign academic qualification;
5. list of qualifications and of any other submitted document, specifying the number of works and published papers;
6. declaration (Attachment 2).
The undersigned authorizes the Administrative Office of INAF-Osservatorio Astronomico di Palermo "Giuseppe S. Vaiana" to use and store her/his personal data only for the purpose of the present selection. The undersigned wishes to receive communication concerning the selection at the following address
(number/street/town/postal code/State): (if possible list also phone number,
fax number and e-mail address):
Place and date (dd/mm/yy)
(Applicant's signature, not to be authenticated)

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SELF-CERTIFICATION

The undersigned (Forename(s)) (Surname)
Place of birth (Town/State)
Date of birth (dd/mm/yy)
Permanent residence address (number/street/town/postal code/Country),
As a candidate to the selection for one post-doc research position issued by INAF-Osservatorio
Astronomico di Palermo with Director's Decree n. 92/2013, on "Filling the gap between
Supernovae and Supernova remnants: model and current observations and simulations, and
model predictions in view of future imaging X-ray observatories", aware that declaring false
statements and producing and using forged documents shall be punished in accordance with the
Criminal Code and with any other applicable special acts on this matter,
DECLARES AND SELF-CERTIFIES
1) that the submitted copies of academic theses and dissertations, of publications and works are
conformal copies of the original documents;
2) to hold the following degree in: (discipline)
Date of award: (dd/mm/yy)
Awarding University: Final mark:
3) to hold the following academic qualifications:
PhD degree in: (discipline)
Date of award: (dd/mm/yy) Awarding University:
Final mark:
Certificates of attendance to post-degree courses:
Fellowships:
Research contracts/grants at private and/or public institutions:
Other:
Place and date (dd/mm/yy)
(*)
(full applicant's signature)
(*) Not authenticated
N.B. A photocopy, not authenticated, of a valid identity document of the applicant must be
attached.
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