

INAF

ISTITUTO NAZIONALE DI ASTROFISICA
OSSERVATORIO ASTRONOMIC DI TRIESTE

Subject: Selection procedure by qualifications and interview for the assignment of one research grant entitled: “Design and implementation of a spectro-perfectionist reduction tool for the HARPS instrument”

CUP: C93C23006790005

**NATIONAL INSTITUTE FOR ASTROPHYSICS
ASTRONOMICAL OBSERVATORY OF TRIESTE**

The Director

- **In accordance** with the Statute of the Istituto Nazionale di Astrofisica (INAF), adopted by INAF Board on March 7th, 2011, and entered into force on May 1st, 2011 and subsequent modifications and integrations;
- **In accordance** with INAF organization and functioning Regulation, approved with resolution n. 44/2012 by INAF Administrative Board on 21 June 2012 and become active on 21 July 2012, and subsequent modifications and integrations;
- **In accordance** with INAF Personnel Regulation, approved with resolution n. 23/2015 by INAF Administrative Board on 11 May 2015, published on G.U.R.I. “Serie Generale” n. 253 on 30 October 2015, and adopted on 1 November 2015;
- **In accordance** with Italian Law n. 240, of 30 December 2010, Article 22 on the awarding of research fellowships, and subsequent modifications and integrations; • **In accordance** with the INAF Regulations for the awarding of research fellowship approved by INAF Administrative Board on 22 June 2011 and adopted on 1 July 2011, and subsequent modifications and integrations;
- **In accordance** with Italian Law n. 11, of 27 February 2015, Article 6, which extends the overall duration of research grants “assegni di ricerca”;
- **In accordance** with the note of INAF Scientific Directorate prot. n. 673/2018;
- **In accordance** with the guidelines for the awarding of research fellowship approved by INAF Administrative Board on 23 March 2018;
- **In accordance** with the guidelines regarding the recruitment of temporary personnel, approved by INAF Board on 29 January 2019;
- **In accordance** with Italian Law n. 196 of 30 June 2003 and subsequent modifications and integrations, containing the “Personal Data Protection Code”;
- **In accordance** with the Presidential Decree n. 68 of 11 February 2005, containing the “Regulation for the use of certified electronic mail, under Article 27 of Italian Law n.3 of 16 January 2003;
- **In accordance** with Italian Law n. 82 of 7 March 2005 and subsequent modifications and integrations, containing the “Digital Administration Code”;



- **In accordance** with Italian Law n. 183 of 12 November 2011 and in particular Article 15 concerning replacement declarations and certificates;
- **In accordance** with the Note of INAF Administrative Directorate prot. 82/DA dated 8 March 2002, containing clarifications on the awarding of research grants and fellowships by INAF Astronomical Observatories and subsequent modifications and integrations;
- **In accordance** with the Note of the Director of INAF Department of Research Structures prot. n. 472/07/AC/PI of 23 January 2007 containing indications about the publication of selection calls on INAF website;
- **In accordance** with MIUR Decree n. 102 of 9 March 2011, establishing the minimum grant for research fellowships;
- **In accordance** with INAF Regulations for the awarding of research fellowships approved by INAF Administrative Board with resolution n. 44/2011 on 22 June 2011 and adopted on 1 July 2011, after subsequent modifications by INAF Administrative Board resolutions n. 8/2011 of 13 October 2011 and n. 2/2012 of 10 January 2012;
- **In accordance** with Italian Conversion Law n. 11 of 27 February 2015 and subsequent modifications of Italian Law n. 192 of 31 December 2014 containing: “Extension of the time limits established by legal provisions” and in particular art. 6 comma 2-bis stating that “The total duration of the working relationship established in accordance with art. 22, comma 3, of Italian Law n. 240 of 30 December 2010, is extended by two years”;
- **In accordance** with the Note of the Director of INAF Department of Research Structures prot. n.5974/2011 of 16 September 2011 having as its object “Publication of call for application for Research Fellowships”;
- **In accordance** with INAF Statute, approved by the Administrative Board with resolution n. 42 of 25 May 2018, and entered into force on 24 September 2018;
- **In accordance** with the “Guidelines for the awarding of research fellowships” approved by INAF Board on 29 January 2019;
- **In accordance** with the Guidelines for the awarding of Research Fellowships, approved by the INAF Board on 29 January 2019, according to which INAF can award research fellowships, in line with art. 22 comma 1 of the Italian Law n. 240 of 30 December 2010, based on the following types:
 - Research Training Fellowship ranging from 20.000 to 26.000 Euros;
 - Postdoctoral Research Fellowship ranging from 28.000 to 32.000 Euros;
 - Young Researcher Fellowship ranging from 34.000 to 38.000 Euros;
 - Special Research Fellowship ranging from 20.000 to 38.000 Euros;
- **In accordance** with the resolution of INAF Board n. 83/2018 dated 18 September 2018 regarding the “Approval of the “Report” by INAF President specifying a “National Program for Research Fellowships” and in particular the paragraph entitled “Proposals for the revision of the defining criteria of the research fellowship program”;
- **In accordance** with the Note prot. 6023, Tit. III – cl. 3, by INAF Scientific Director having as its object “Urgent call for the consideration of the contents and dispositions of the resolution n. 83/2018 concerning the awarding of research fellowships”;
- **Given** the "Organization and Functioning Regulations of the National Institute of Astrophysics", approved by the CDA with Resolution of June 5, 2020, number 46, amended by the same CDA with Resolution of April 29, 2021, number 21, published on June 24 2021 and entered into force on 9 July 2021;
- **In accordance** with the Decree of the Minister of Education, University and Research of 30 December 2019, number 1201: ➤ Professor Nicolò D’AMICO has been appointed President of the "National Institute of Astrophysics", starting from 30 December 2019 and for a period of four years; ➤ Professor Stefano BORGANI and Ms Maria Cristina DE SANCTIS were appointed members of the Board of Directors for the same period;



- **In accordance** with the Decree of the Minister of Education, University and Research dated January 31, 2020, number 32, Engineer Stefano GIOVANNINI and Dr. Grazia Maria Gloria UMANA were appointed as Members of the Board of Directors starting from January 31, 2020 and for the duration of four years; in the meeting of February 3, 2020, the Board of Directors took office in its full composition;
- **Given** the Resolution of February 3, 2020, number 6;
- **Given** the individual fixed-term employment contract under private law of March 9, 2020, repertory number 1, with which, in compliance with the provisions of the Board of Directors with Resolution of February 3, 2020, number 6, it was again conferred to the Doctor Gaetano TELESIO the position of Director General of the "National Institute of Astrophysics" for a duration coinciding with that of the President's mandate, except in cases of early termination of the same expressly provided for by the current legislative and statutory provisions;
- **Considering** therefore, that the position of Director General of the "National Institute of Astrophysics" conferred on Doctor Gaetano TELESIO will expire on 30 December 2023;
- **Given** the individual fixed-term employment contract under private law of 18 March 2020, repertory number 2, with which, in compliance with the provisions of the Board of Directors with Resolution of 3 February 2020, number 6, it was again conferred to the Doctor Filippo Maria ZERBI the position of Scientific Director of the "National Institute of Astrophysics" for a duration coinciding with that of the mandate of the President, except in cases of early termination of the same expressly provided for by the current legislative and statutory provisions;
- **Considering** therefore, that the position of Scientific Director of the "National Institute of Astrophysics" conferred on Doctor Filippo Maria ZERBI will expire on 30 December 2023;
- **Considering** also that, on 14 September 2020, Professor Nicolò D'AMICO ceased, for natural reasons, from the office of President of the "National Institute of Astrophysics", which had been conferred on him by Decree of the Minister of Education, University and Research of 30 December 2019, number 1201, as mentioned above;
- **Given** the Decree of the Minister of University and Research of 9 October 2020, number 772, with which Doctor Marco TAVANI was appointed President of the "National Institute of Astrophysics", starting from 9 October 2020 and "... for the remaining duration of the mandate conferred on Professor Nicolò D'AMICO with Ministerial Decree of 30 December 2019, number 1201... ", or until 30 December 2023;
- **Given** the Resolution of October 29, 2020, number 81, by which the Board of Directors has: ➤ confirmed the "... positions of Director General and Scientific Director of the" National Institute of Astrophysics ", respectively conferred to Doctors Gaetano TELESIO and Filippo Maria Zerbi with the Resolution of February 6, 2020, number 6, and with the individual employment contracts to fixed-term contract under private law of March 9, 2020, repertory number 1, and March 18, 2020, repertory number 2, until their natural expiry, or until December 30, 2023 ... "; ➤ provided that "... all the provisions contained both in the Resolution and in the individual employment contracts referred to in the introduction and in the previous article 1 remain valid, with specific regard to the legal status, the remuneration and the discipline of the employment relationship ...";
- **In accordance** with the resolution of INAF Board dated 15 May 2020 and the implementation note of INAF Directorate General prot. n. 2491 dated 16 May 2020 regarding the "Adoption of the regulation for the rationalization of temporary personnel recruitment and for the awarding of research fellowships and regulation of the transitional regime" specifying that the present selection procedure is simultaneously aimed at:
 - offering an opportunity of professional growth to young people with a Ph.D. degree, to researcher fellows and to temporary workers, who want to experience the national and international circuit of



research, in a perspective of rotation and mobility, that is acquire specific expertise in the context of temporary projects and/or activities;

- holding positions beyond the planning of permanent staff needs and that, consequently, do not constitute any binding assumption for the placing in INAF permanent positions”;

• **Given** the Resolution of the Board of Directors of 5 June 2020, number 54, with which the "Rules for the rationalization of the procedures for the recruitment of personnel with fixed-term employment relationships and for the award of checks for the performance of research activity”;

• **Given** the Resolution of 30 December 2020, number 188, with which the Director General of the National Institute of Astrophysics, Dr. Gaetano TELESIO, has appointed Dr. Fabrizio Fiore as Director of the "Astronomical Observatory of Trieste" for the duration of three years starting from 1 January 2021;

• **Given** the Law Decree of 1 April 2021, number 44 which provides for "Urgent measures for the containment of the COVID-19 epidemic, regarding anti-SARS-CoV-2 vaccinations, justice and public competitions", converted, with amendments, by Law May 28, 2021, number 76 and, in particular, art. 10 "Measures for carrying out the procedures for public competitions”;

GIVEN The Law Decree of 29 December 2022, number 198, and in particular art. 6 par.1, which provides for the extension of the possibility to open calls for the assignment of research grants pursuant to article 22 of the Law n. 240 of 30 December 2010, according to the provision in force before the date of entry into force of Law Decree 36/22;

• **In accordance** with the request for the opening of a research grant call presented by dr. Guido Cupani, scientific responsible for the project Fundamental Research INAF 2023 (Techno Grant) “*Spectro-perfectionism for high-fidelity spectroscopy*” (*Spectro-perf*);

• **Considered** the interest to guarantee the highest possibility of participation to the present selection also to potential candidates with educational qualifications obtained abroad;

• **Established** that assessment of possessing the declaration of equivalence of the educational qualifications obtained abroad will be made only for the successful candidate due to reasons of procedural economy;

• **Ascertained** that the financial coverage of the grant amounting to 34.550,00 euro has been provided with assigned funds to Budget ch. 1.05.23.02.04 “*TECHNO GRANT - Spectro-perfectionism for high-fidelity spectroscopy (ref. Guido Cupani)*”, CUP C93C23006790005, to chapter 1.01.01.01.009 "Research grants".

DECREES

Art. 1- Research Project

A call is open for a selection procedure on the basis of candidates’ qualifications, integrated by an interview, for the assignment of one “Post Doc Research Grant” of the duration of one year, with a possible extension, entitled: “***Design and implementation of a spectro-perfectionist reduction tool for the HARPS instrument***” nell’ambito del progetto di Ricerca Fondamentale INAF 2023 (Techno Grant) “*Spectro-perfectionism for high-fidelity spectroscopy*” (*Spectro-perf*).

Faithful reconstruction of the spectral information of astrophysical sources is a long-standing yet unachieved goal in the science of spectroscopic data treatment. Data reduction in particular has still failed to implement on a large scale what is demonstrably the best approach to spectral extraction, namely the "spectro-perfectionist" (SP) method. The aim of the project is to remove this difficulty by implementing the first full-SP tool for a super-stable spectrograph, HARPS. The project will take advantage of recent technological improvements (e.g. in GPUs) and novel solutions to model the instrumental PSF. The results will be pivotal to implement similar tools for other state-of-the-art spectrographs, like ELT ANDES, and to address ground-breaking science cases such as (a) the



measurement of fundamental constant variability; (b) the direct measurement of the expansion of the universe from a redshift drift of distant sources; (c) the assessment of open issues concerning the primordial nucleosynthesis; and (d) the measurement of the gravitational redshift on the Sun and other stars, and the determination of the nature of gravity in weak field regime.

The selection is aimed at the acquisition of one personnel unit qualified in the use and development of software tools (pipeline) for reduction of high-resolution spectroscopic data, both observational and simulated, with particular focus on “spectral fidelity” techniques (modelling of the “line spread function”, modelling of the “background”, optimal extraction). Research will be carried out at INAF-OATs.

The following activities will be carried out during the fellowship:

- Modelling of the instrumental characteristics of HARPS according to the spectro-perfectionism approach (SP);
- Design and implementation of an SP algorithm for the reduction of HARPS spectra (HARPERFECT);
- Verification and validation of HARPERFECT on both archive and simulated spectra;
- Study of the possibility to extend the HARPERFECT approach to other instruments (ESPRESSO, CUBES).

Research will be carried out at INAF-OATs under the scientific supervision of Dr. Guido Cupani.

The fellowship is aimed at this specific research project, and was not announced with the aim of recruitment programming either of the Institute or of the project itself, but of offering the opportunity to carry out research activities in the framework of the project to candidates who deem it useful to their professional growth.

We specify that the aim of this selection procedure is to:

- offer the opportunity of professional development to young candidates holding research master degrees, to research fellows and to fixed-term contract staff who wish to engage in the national and international research environment, with a view to turnover and mobility, which means recruitment of specific professional skills within fixed-term projects and/or activities;
- to appoint in this way positions which are external to recruitment programming of permanent staff positions and therefore do not represent any binding prerequisite for access to permanent staff positions of the Institute.

Further questions on the scientific project can be addressed to prof. dr. Guido Cupani (e-mail: [guido.cupani\[at\] inaf.it](mailto:guido.cupani[at]inaf.it)).

Article 2 **Admission Requirements**

1. Applicants to this **Call** are required the following:

- a) PhD degree or equivalent degree either in Physics or Astronomy or Astrophysics or Computer Science or Engineering, also if awarded abroad, provided that the relevance of the PhD degree or of the equivalent title will be ascertained by the “**Selection Board**” further mentioned in article 8;

or alternatively

- b) Master degree issued according to the previous Italian University regulations or Degree (2[^] level) either in Physics, Astronomy or Astrophysics or Computer Science or Engineering, obtained before the Reform introduced by Italian Ministerial Decree (DM) n. 509/09 (Diploma di Laurea), namely the classes of



specialist higher education (Lauree Specialistiche), namely the classes of Lauree Magistrali which have been considered equivalent to the above mentioned Diploma di Laurea as per DM of 9 July 2009, or equivalent foreign degree, provided that the relevance of the Degree or of the equivalent qualification will be ascertained by the “**Selection Board**” further mentioned in article 8; **and subsequent documented experience of at least 3 years in scientific, technological or managerial activities;**

2. For the purposes of admission to this selection procedure only, the equivalence of qualifications obtained abroad will be ascertained by the “**Selection Board**” further mentioned in Article 5, on the basis of the documentation produced by the applicant in question compliant to Article 4, paragraph 1, letter d), case 2), of this “**Call**”. Should such applicant be successful, the Administration, upon accepting the assessment of the “**Selection Board**” will send the assessment report, together with the required documentation mentioned in Article 3, paragraph 2, letter a) or b) of the Decree of the President of the Republic n. 189 of 30 July 2009 and with the application itself, to the Italian Ministry of University and Research in order to obtain their formal advice as foreseen by Article 4, paragraph 2 of the Decree.
 3. Candidates are requested:
 - a) experience in the field of observational spectroscopy and in the development of scientific codes for the reduction of observational data.
 - b) Excellent knowledge of the English language, both oral and written;
 - c) Good skills to work autonomously;
 - d) Good teamwork skills, also with remote elements.
 4. The following preferential qualifications will be considered:
 - a) Experience in reduction of data from ESO instruments (particularly from HARPS);
 - b) Experience in the autonomous development of software tools for the reduction and analysis of data;
 - c) Proven experience in the use of Python.
 5. In addition to the requirement mentioned in previous paragraph 1, applicants, Italians and foreign, to this **Call** must possess the following:
 - a) Registration in the electoral rolls of their residence place (**for Italian citizens only**);
 - b) age not less than eighteen years;
 - c) enjoyment of civil and political rights;
 - d) no criminal convictions;
 - e) no pending criminal proceedings;
 6. According to Article 3 of President of the Council of Ministers Decree No. 174 of February 7, 1994, citizens of EU Member States, as well as citizens of non-EU States, must:
 - a) possess all the requirements listed in this "**Call**";
 - b) enjoy civil and political rights also in their countries of origin.
 7. All the requirements detailed by this "**Call**" must be possessed by the deadline for the submission of applications.
 8. Applicants will be admitted to the selection procedure subject to subsequent verification of the actual possession of the requirements of this “**Call**” and declared in their respective applications.
 9. Failure to meet only one of the requirements listed in this "**Call**" will result in exclusion from the selection procedure.
 10. Exclusions from the selection procedure, regardless of the cause, may be decided at any time by duly motivated provision of the Director of the "**Astronomical Observatory of Trieste**”
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National Institute for Astrophysics" upon recommendation of the "**Secretary**" of the "**Selection Board**," in his/her capacity as the "**Responsible for the Procedure**".

11.

Article 3

Terms and Methods of application submission

1. The application for admission to the selection procedure, on plain paper in Italian or English language according to the template provided in "**Attachment A**" of this "**Call**," accompanied by all necessary documentation, must be submitted, under penalty of exclusion, no later than February 15, 2024 **at 11:59 PM (Italian time)**, provided that the date and time of submission of the application will be certified by the computer system. Applications submitted after the above deadline will not be considered.

2. Applications to this "**Call**" must be submitted, **under penalty of exclusion**, via certified electronic email (PEC) or ordinary email, in "PDF" format, to the address: inafoatrieste@pcert.postecert.it writing in the subject line of the email: "*Selezione per il conferimento di un assegno di ricerca–"Design and implementation of a spectro-perfectionist reduction tool for the HARPS instrument"*";

3. Applications for admission to the selection procedure that come from an ordinary or certified email address whose owner is different from the person who submitted the application are not admitted.

4. Applications submitted in violation of the provisions detailed in the preceding points of this article will be considered ineligible.

5. Applications must be signed with a certified digital signature or, alternatively, with a handwritten signature and transmitted together with a copy of a valid identity document.

6. The signature on applications is not subject to authentication compliant with Article 39 of the Decree of the President of the Republic n. 445 of 28 December 2000 as amended and supplemented.

7. Applicants will be excluded in any case by the selection procedure of this "**Call**" by means of motivated provision of the Director of the "**Trieste Astronomical Observatory-National Institute for Astrophysics**" under the following circumstances:

- a) Applications are not signed as per Paragraph 6. of this Article.
- b) Applications are submitted after the deadline set in accordance with paragraph 1. of this article.

Article 4

How to apply to this "Call"

1. Pursuant to articles 46, 47, 75 and 76 of the Decree of the President of the Republic n. 445 of 28 December 2000 as amended and supplemented, applicants must, under their own responsibility, declare that:

- a) The family name, first name, place and date of birth, permanent address and fiscal code provided in the applications are true and correct;
- b) The citizenship held;
- c) They enjoy civil and political rights, specifying in what Municipality electoral roll they are registered, or alternatively, explaining the reasons for non-registration or cancellation from the aforementioned lists;
- d) They hold one of the required titles as per Article 2, paragraph 1. letters a) and b) of this "**Call**" specifying:



* The year in which it was obtained, the university, institute, organization, research center, or other qualified public or private entity, including foreign ones, that issued it, and the final grade.

* In the case of documented experience in the proposed research activities as per Article 1, point 2. of this “**Call**”, the relevant periods and the universities, institutes, organizations, research centers, or other qualified public and private entities, including foreign ones, where it was acquired, on the conditions that:

- Applicants holding educational qualifications obtained abroad are required to explicitly clarify if, according to the relevant regulation, the qualifications have already been recognized or declared as equivalent to one of the eligible titles for admission to this selection procedure.

- In the absence of the declaration referred to in this paragraph 1., applicants must attach a copy of the qualification(s) as per letter d) of paragraph 1) above, or alternatively, any documents that attest to the educational qualification held, the list of taken examinations and/or the training and research activities carried out, as well as the final score, so as to enable the Selection Board to acquire all necessary elements for assessing the equivalence of the qualifications to those required for admission to this “**Call**.”

- e) They have, or have not, been convicted of any crime, mentioning any criminal conviction even if Pardon, Cancellation or Conditional Pardon has been granted, or else a Plea Bargain has been agreed compliant with article n. 444 and following articles of the Criminal Procedure Code (**this declaration must always be provided either in absence or in presence of criminal conviction**);
- f) They have, or have not, criminal proceedings pending against them (**this declaration must always be provided either in absence or in presence of criminal proceedings**);
- g) They commit not to receive any other scholarships whatsoever for the whole duration of the research activity, except for those provided for in Article 9 of this “**Call**.”
- h) If they have previously held other grants, research fellowship or other types of collaboration contracts issued by other public or private Institutions and their duration;
- i) Knowledge of the English language;
- j) to provide the postal address to which all communications relevant to this selection procedure are to be sent;
- k) To acknowledge to have read and understood the regulations of the present call.

2. Citizens of EU Member States, applicants who, although not citizens of a EU Member State, are nonetheless holders of the right of residence or permanent residence and applicants who do not hold the citizenship of a EU Member State and who do not have the right of residence or permanent residence must also declare the possession of the requirements provided for in Article 3 of the Prime Minister's Decree of February 7, 1994, No. 174, as specified in Article 2, paragraph 5, of this “**Call**.”

3. All applicants are also required to:

- a) indicate their contact details for receiving any communications related to this selection process, including telephone numbers and email addresses;
- b) promptly notify any subsequent changes to the aforementioned contact details through the same means of submission used for their application.

4. Applications must be accompanied by:



- a) the applicant's "*curriculum vitae et studiorum*" (CV), written in Italian or English, dated and signed, which must also include a descriptive report of all professional activities carried out;
- b) a copy of the certificate or, alternatively, a declaration whereby the applicant states that he/she holds the degree or qualification in question, pursuant to articles 46, 47, 75 and 76 of the Decree of the President of the Republic n° 445 of 28 December 2000, as subsequently amended and supplemented, so attesting, in accordance with Paragraph 1. letter d), point 2) of this article, the applicant's academic qualifications;
- c) a complete list of the qualifications deemed suitable to demonstrate the applicant's experience as well as his/her aptitude for research activities, and previous academic and/or professional experiences in the activities covered by this "**Call**".
- d) a comprehensive list of publications related to the same activities mentioned in above letter c), dated and signed, containing all relevant information regarding the titles of the publications, journals, years of publication, author lists, and web addresses where they can be accessed;
- e) a copy of a currently valid identity document.

5. The "*curriculum vitae et studiorum*" referred to in paragraph 7, letter b), of this article must be in "*Europass*" format or, in any case, a format with a similar structure and content, and in accordance with the provisions of Articles 46 and 47 of Presidential Decree No. 445 of December 28, 2000, as subsequently amended and supplemented, in order to certify the truthfulness of its content. Applicants are reminded of the legal consequences deriving from the submission of false statements or documents as per articles n. 75 and 76 of the same Decree and of the relevant special current regulations.

6. Applicants with a disability as per Law No. 104 of February 5, 1992, as subsequently amended and supplemented must explicitly request the necessary assistance, in relation to their specific situation, in order to take the interview.

7. For the purposes specified in paragraph 9. of this article, as indicated in the Circular of the Department of Public Administration dated July 6, 1999, No. 6, applications must be accompanied by a certification issued by an appropriate healthcare facility specifying, with regard to the applicant's disability or handicap, the essential elements to allow the Astronomical Observatory of Trieste to prepare in due time the means and tools necessary to ensure the smooth conduct of the aforementioned interview.

8. The Astronomical Observatory of Trieste assumes no responsibility for:

- a) loss or non-delivery of communications directed to applicants, or for delays or other inconveniences or misunderstanding attributable to postal or telegraphic services;
- b) loss or non-delivery of communications attributable to applicants' failure to promptly report changes in their place of residence and/or the address indicated in the application, including the ordinary or certified email address;
- c) any misunderstandings or delays attributable to third-party actions, fortuitous events, or force majeure.

9. For communications related to this "**Call**" the Astronomical Observatory of Trieste will exclusively use the certified or regular email addresses indicated in the applications.

10. In the event that a non-certified email address is used for communications, applicants must confirm receipt of the communication.

11. In order to be assessed as per Article 6 below, submitted qualifications must be substantiated as follows:

- a) Qualifications issued by Public Administrations and Public Service Managers: through a declaration whereby applicants state that they hold the degree or qualification, pursuant



- to articles 46 and 47 of the Decree of the President of the Republic n° 445 of 28 December 2000 as amended and supplemented, using the apposite template (**Attachment B**);
- b) Qualifications issued by entities other than Public Administrations and Public Service Managers: through one of the following methods:
- i. Declaration whereby applicants state that they hold the degree or qualification, pursuant to articles 46 and 47 of the Decree of the President of the Republic n° 445 of 28 December 2000 as amended and supplemented, using the apposite template (**Attachment B**);
 - ii. Original document;
 - iii. Certified copy of the document;
 - iv. Photocopy of the document, along with a declaration whereby applicants state that they hold the degree or qualification, pursuant to articles 46 and 47 of the Decree of the President of the Republic n° 445 of 28 December 2000 as amended and supplemented, using the apposite template (**Attachment B**);
12. In the case of electronic documents, only non-editable static formats, preferably "PDF" or "TIFF," should be used, under penalty of exclusion.
13. Regarding the verification of declarations submitted for the purposes of this "Call", legal provisions of article 75 and 76 of the Presidential Decree No. 445 of December 28, 2000, as subsequently amended and supplemented, and Law No. 183 of November 12, 2011, apply.

Article 5

Overlapping and incompatibility

1. Research fellowships cannot be awarded to personnel employed by the "**National Institute for Astrophysics**" either on fixed-term or on permanent contracts, and to personnel employed by the Institutes listed in Article 22, paragraph 1 of Law no. 240 of 30 Dec. 2010, as amended and supplemented.
2. In accordance with Article 22, paragraph 3 of Law n. 240 of 30 Dec. 2010, entitlement to the fellowship is incompatible with enrolment in University Bachelor degree courses, Master degree courses, PhD courses with scholarship, Specialty Medical Training courses both in Italy and abroad, and in First and Second Level Post-graduate University courses.
3. Entitlement to the fellowship involves compulsory unpaid leave for employees of the Italian Public Administration, also in case of part-time employment.
4. Fellowships cannot be held contemporarily with other grants of whatever kind, with the exception of those awarded by Italian Institutes, among which is also the "**National Institute for Astrophysics**", or by foreign Institutes, both international or supranational, with the aim of integrating the research activities carried out by the fellowship holders through periods spent abroad.
5. Fellowships cannot be cumulated with emoluments for continuative work activities, also in case of part-time activities.
6. Instead, limited self-employed occasional work is compatible with the research fellowship, provided that it is not in conflict with the research activity carried out on behalf and in the interests of the "**National Institute for Astrophysics**", or may cause delayed performance of the activity.
7. The activity of paragraph 6. above must be in any case previously authorized by the Director of the Astronomical Observatory of Trieste after hearing the Responsible for the Research Programme.



8. Research fellowships cannot be awarded to retired personnel either of the “**National Institute for Astrophysics**”, or of other Research Institutes or Universities.

9. The total duration of work relationships with holders of research fellowships, according to Article 22 of Law n. 240 of 30 December 2010, also in case fellowships were awarded by different Universities, either public or private, or online universities, as well as by other institutes or by public institutes, according to what foreseen by the above mentioned legislation cannot in any case exceed six years, also non-continuous, with the exclusion of periods of maternity leave or absence due to sick leave as foreseen by the law in force.

Article 6

Location and length of the fellowship

1. The location of the research activities is INAF-Osservatorio Astronomico di Trieste.
2. The length of the fellowship is **1 year, renewable** according to the requirements of the research project and to availability of funding, within the limitations provided by article 22 of Law n. 240/210 and subsequent amendments and integrations.

Articolo 7

Emoluments

1. The grant is worth **28,000.00** Euros gross per year.
2. This amount is net of burdens to be charged to the “**National Institute for Astrophysics-Astronomical Observatory of Trieste**” and will be paid in deferred monthly instalments.
3. The cost deriving from this grant for a total of € 35.550,00 will be charged on the funds assigned in the 2023 Budget on Cost Center 1.04 (INAF - Trieste Astronomical Observatory), under the Function Objective 1.05.23.02.04 “*TECHNO GRANT - Spectro-perfectionism for high-fidelity spectroscopy (ref. Guido Cupani)*”, CUP: C93C23006790005, chapter 1.01.01.01.009 "Research grants".
4. It is arranged that the Budget Office will proceed with the budget transfer within the related Objective Function which may be deemed necessary for proceeding with the commitment of expenditure as recalled in the premises of this Directorial Provision and to reset, with a change in commitment, the sums that are still available at the end of the contract or at the end of the relevant financial year.
5. Tax legislation applied to research fellowships are the dispositions of article 4 of Law 335 of 13 August 1995, as amended and supplemented.
6. 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.
7. 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 the “**National Institute for Astrophysics**” up to the total amount of the grant.
8. The period of obligatory maternity leave will not contribute to the duration of the grant foreseen by the contract.
9. Pursuant to article 7, paragraph 11 of this “**Call**”, the grant holder must draw up at his/her expenses an insurance policy against accidents at work, which must be presented at the time of signing the contract.

Articolo 8



Selection Board

1. The “**Selection Board**” is appointed by provision of the Director of the Astronomical Observatory of Trieste upon request of the Scientific Responsible, and is composed of the Chair and two members, in compliance with the provisions of the "*Disciplinare per il conferimento di assegni per lo svolgimento di attività di ricerca*" (Regulations for the award of fellowships for research activities), as recalled in the foreword of this “**Call**”.
2. By the above provision the "**Secretary**" of the "**Selection Board**" will be also appointed. The Secretary will also act as “**Responsible of the Procedure**”, with the specific task to verify and guarantee the formal regularity of the selection procedure.
3. In the course of the first meeting, which can be also held in remote mode, the "**Selection Board**" will establish the following:
 - a) criteria and modality of evaluation of qualifications and interview, which must be explicitly specified in the meeting record, with the aim of assigning respective scores.
 - b) the schedule of the interview.
4. The “**Selection Board**”, with the scope of defining the criteria for the evaluation of both requirements and interviews, must follow the general principles of the “**European Charter for Researchers**”.
5. The “**Selection Board**”, can assign to each candidate a total ranking score which will not exceed 100, subdivided as follows:
 - a) **60** marks for qualifications evaluated according to article 6 of this “**Call**”.
 - b) **40** marks for the interview.

Article 9

Selection procedure and evaluation of qualifications

1. The selection is based on qualifications and interview.
 2. Qualifications to be evaluated, within the maximum score of **60 marks**, are the following:
 - a) *Curriculum vitae et studiorum* and research experience relevant to the scope of this call: up to a maximum of 30/60 scores.
 - a) *Scientific publications* (scientific papers, software products, other documented products) relevant to the scope of the call: up to a maximum of 24/60 scores;
 - b) *Reduced seniority in research activities*: up to a maximum of 6/60 scores (subtracting two points for each year that elapsed since award of the PhD degree or since the conclusion of the three years of experience alternative to the PhD.
In case of equal scores, the PhD title will be considered as preferred qualification
 3. Applicants whose qualifications score is evaluated not lower than **40/60** marks will be admitted to the interview.
 4. The interview, which can also be carried out via videoconference, consist in an interview focussed on following topics:
 - a) Profile and experience of the candidate, with particular reference to the requirements of this call;
 - b) Reduction of high-resolution spectroscopic data: techniques, problems and software tools commonly used;
 - c) “Spectro-perfectionism” approach: theory and applications to real cases.
 5. Applicants admitted to the interview will be summoned by a specific notice sent either by electronic certified mail or by ordinary electronic mail, with acknowledgment of receipt of the notice, at least 15 days before the date of the scheduled interview.
 6. In the above notice the following will be communicated:
 - a) the total score obtained by the candidate after evaluation of the qualifications;
 - b) day, time, and venue of the interview.
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7. For admission to the interview, applications must provide their identity documents with current legal validity.
8. In case interviews take place in videoconference mode, adequate measures will be taken to ensure compliance with the principles of publicity, transparency and impartiality.
9. Conversely, in case interviews take place on-site, the following measures must be taken:
 - a) for conducting the interviews, a room open to the public must be used, with space capacity suited to enable maximum participation;
 - b) after each session of interviews, the **Selection Board** will prepare the list of examined candidates with indication of marks assigned to each of them;
 - c) the above list, undersigned by the "**President**" and by the "**Secretary**" of the "**Selection Board**", will be posted at the entrance of the room where the interviews are conducted;
 - d) at the end of each session the Selection Board will draw up the relevant official report which will display the marks obtained by each individual candidate for the interview;
10. Applicants are deemed to have passed the interview, in case it was performed, if they obtain at least **30/40** marks.
11. The total score assigned to each candidate is determined by the sum of the marks assigned to qualifications and to the interview.
12. At the end of the selection procedure the "**Secretary**" of the "**Selection Board**", who is also "**Responsible for the Procedure**", will submit the relevant acts, together with the "**final ranked list by merit**", to the Director of the Astronomical Observatory of Trieste.
13. The "**final ranked list by merit**" of the selection procedure is approved by decree of the Director of the Astronomical Observatory of Trieste and will be posted on the "**Website**" of the "**National Institute for Astrophysics-Astronomical Observatory of Trieste**", at the following link <https://www.oats.inaf.it>, Section "**Job opportunities**".

Article 10

Award of the fellowship and stipulation of the contract

1. The successful candidate of the selection procedure will be formally summoned to stipulate the contract for research activities.
2. The successful candidate of the selection procedure loses the right to the fellowship in case he/she fails to sign the contract within the deadline established in the summon notice of paragraph 1 of this Article, except for cases of objective and proven impediment and/or in case of force majeure.
3. Signing of the above contract in any case will not establish either a subordinate employment relationship or give any rights to the fellowship holder to access to the Institute's staff positions.
4. Within ten days from the notification of the result of the selection, the successful candidate must issue a formal declaration of acceptance of the fellowship and concurrently state that she/he is not subject to any of the incompatibility conditions foreseen in article 9 of this "**Call**".
5. In case the successful candidate possesses an education qualification obtained abroad that has not been already declared equivalent, according to the Italian law in force, to one of the qualifications listed in Article 2, point 1, letter a), b) or c) of this "**Call**", the Administration, after adopting the results of the verification performed by the "**Selection Board**" with the sole scope of admission to the procedure, will forward the above results, 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 dated 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.

6. In case of positive opinion of the Ministry of University and Research or in case of expiry of the time limit by which the opinion must be returned, the Astronomical Observatory of Trieste, by provision which will be communicated both to the candidate and to the Ministry, will apply the acknowledgment of the education qualification and will authorize the assignment of the fellowship for execution of research activity.
7. In case of negative opinion of the Ministry of University and Research, the Astronomical Observatory of Trieste provides that the qualification is not valid for admission to the selection procedure by provision that will be communicated both to the candidate and to the Ministry, with the consequent exclusion of the candidate, and authorizes to scroll the ranking list and to award the fellowship to the next eligible candidate of the ranking list.
8. In the declarations of acceptance referred at the paragraph 4, the fellowship holder shall make the commitment on his/her own responsibility that for the whole duration of the research fellowships he/she will not hold either any grants except those awarded by Italian or foreign institutions with the aim of integrating the fellow's research activity, or any subsidies, or any other fellowships.
9. Within the same deadline stated in paragraph 4 of this Article, the successful candidate of the selection procedure who intends to renounce the fellowship must send specific communication to the Direction of the the **"National Institute for Astrophysics-Astronomical Observatory of Trieste"**.
10. In case the successful candidate specifically declares, by the procedure defined in paragraph 9 above, to renounce the assignment of the fellowship, or for any other reason it is not possible to stipulate the relevant contract with the successful candidate, the grant holder decides to renounce the contract or loses the right to the contract, or the contract is terminated, the **"National Institute for Astrophysics-Astronomical Observatory of Trieste"** reserves the right to award the fellowship to the next eligible candidate according to the ranking of the **"final ranked list by merit"** which was approved and published as foreseen by Article 6, paragraph 11 of this **"Call"**.
11. Prior to starting his/her research activities, the holder of the fellowship is bound, under penalty of forfeiture of the right to the fellowship, to stipulate a specific insurance policy against accidents at the workplace.
12. Instead, as for third party liability, the holder of the fellowship will receive insurance coverage drawn up by the **"National Institute for Astrophysics"** at its own expenses.
13. The insurance policy in the previous point does not cover the civil liability of the fellowship holder towards the Institute.
14. The holder of the fellowship can terminate the contract by written notice of at least **30 days**.
15. The notice term starts from day 1 or day 16 of every month.
16. In case of failing of the prior notice, the Institute is entitled to recover the amount corresponding to the notice time-span that was not communicated from the salary still to be paid to the fellowship holder.
17. In any case, revoking the selection procedure of this **"Call"**, which constitutes the necessary prerequisite for awarding the fellowship, is ground for termination of the relevant contract, without prior notice and without prejudice to the payment of the salary foreseen for possible activities already provided.

Article 11 **Starting date and obligations**



1. The starting date of the fellowship is established by the Director of *INAF - Osservatorio Astronomico di Trieste* with the summon notice for the stipulation of the contract.
2. The activation of the contract is due will presumably begin on April 1st, 2024. The precise starting date could be reasonably delayed in case of necessity of completion of the administrative procedures and/or for the cases foreseen by article 10 of this call.
3. The holder of the fellowship must fulfil the following obligations:
 - a. To sign preliminarily the contract which sets the rules for the collaboration to the foreseen research activities and for whatever else is envisaged.
 - b. To start on the due starting date, except for any temporary motivated impediment which must be promptly communicated to the Observatory at the date set in the contract for the research activity at the premises of *INAF - Osservatorio Astronomico di Trieste*;
 - c. To continue the research activities regularly and without interruptions for the whole length of the fellowship;
 - d. To comply with all internal regulations and other dispositions set by the Director and by the Scientific Responsible of the research program;
4. The grant holder who, after starting the foreseen research activity, does not pursue it regularly and continuously for the whole length of the fellowship without producing any justifiable reasons, or is liable of grave and repeated fault, or finally, according to the motivation of the Scientific Responsible shows proof of evident inadequate ability to carry out the research program, will incur in the termination of the contract with the consequence of the further exclusion from the fruition of the fellowship through motivated decision of the Director.
5. The fellowship holder will be informed of the possible internal procedure for the termination of the contract, and he/she will have the right to submit any personal counter-arguments on the matter by means of written notice addressed to the Director of the Observatory.
6. The fellowship holder will be informed by motivated notice about the conclusion of the procedure, both in case of straightforward return on record without further consequences, and in case of effective decision of termination of the contract.
7. Temporary suspensions of the fruition of the research fellowship can be justified only in case the fellowship holder needs to be absent during pregnancy and maternity, and for sick leave with duration exceeding one month, or for any other serious reason.
8. The reasons for the suspension of the fellowship must be proven and documented accordingly, and must be promptly communicated to the Observatory.

Article 12

Evaluation of research activity

1. The fellowship holder is subject to evaluation according to the frequency basis established in the contract, and to this aim he/she is bound to draw up detailed written reports on the research activities that were carried out, which are to be submitted to the evaluation of the Supervisor who will approve them by issuing motivated assessments.
2. In case the Supervisor/Scientific Responsible, by adequate motivation of decision, fails to approve the report on research activities carried out by the fellowship holder, the Director of the "**National Institute for Astrophysics-Astronomical Observatory of Trieste**" will proceed to the termination of the relevant contract as of right.

Article 13

Responsible for the procedure



1. In accordance with Law No. 241 dated 7 August 1990 and subsequent modifications and integrations, the person "**Responsible for the Procedure**" is Dr. Mirella Giacchetti, classed in the professional profile: Administration Official, staff member of the "**National Institute for Astrophysics-Astronomical Observatory of Trieste**".

Article 14

Processing of personal data

1. According to Article 13 of the "**Regulation of the European Parliament and of the Council of 27 April 2016 No. (UE) 2016/679 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**", also called "**General Data Protection Regulation**", the "**National Institute for Astrophysics**" in its capacity as controller informs that processing of personal data made available by the candidates who applied to the selection procedure of this "**Call**", or otherwise were acquired for this purpose by the above "**Institute**", aims only to carry out activities and to take acts and provisions foreseen by the above procedure, and that it will be performed by persons in charge of conducting it, including the members of the "**Selection Board**".
2. Processing of data will be performed by use of specific procedures, also computerized, with the modes and within the limits deemed necessary to pursue the finalities specified in the above point 1, also in case of possible communications to third parties.
3. Providing personal data is necessary for the verification that the candidate possesses the qualifications for participation to the selection, and failure in their provision can prevent such verification.
4. The data subjects shall have the rights as of Article 15 and subsequent articles of the "**General Data Protection Regulation**" and, in particular, the right to access to their personal data, to rectification, to erasure, to restriction of processing, and also the right to object to processing of personal data. Such rights can be exercised by issuing a specific requests to the "**National Institute for Astrophysics**", headquartered in Rome, address; Viale del Parco Mellini No. 84, Postcode: 00136, through the procedures described in the following paragraph.
5. The rights stated in point 4. above can be informally exercised by sending a request to the "**Data Protection Officer**" of the "**National Institute for Astrophysics**":
 - a) by registered post with acknowledgment due to be sent to the address specified in point 4. of this Article;
 - b) By e-mail message to the following address: **rpd@inaf.it**;
 - c) By electronic certified mail message to the following address: rpd-inaf@legalmail.it.
6. Subjects who consider that the processing of personal data infringes the provisions of the "**General Data Protection Regulation**" and the provisions of this Article have the right to lodge a complaint to the Data Protection Officer, as provided for by Article 77 of the aforementioned "**Regulation**", or to lodge a complaint to the competent judicial authority pursuant to Article 79 of the same "**Regulation**".

Article 15

Advertisement

1. This "**Call**", as well as the resulting acts, will be advertised through publication on the web page of the "**National Institute for Astrophysics**", at the following link: "**www.inaf.it**", Section "**Work with us**"; at the address: <https://www.oats.inaf.it> subsection "**Job**".



opportunities”, and on the web pages of the Ministero dell’Università e della Ricerca and of the European Union, according to the guidelines defined by the aforementioned Ministry.

Article 16
Applicable regulation

1. For anything that is not envisaged and regulated by this "**Call**", reference shall be made to the laws and regulations relevant to research fellowships.

Trieste, December 12, 2023

Director
Dott. Fabrizio Fiore