

Call 39/2022

All. 1

Announcement of public selection based on qualifications and interview for n. 1 Professionalizing Fellowship on the field of "Artificial Intelligence (AI) and High Performance Computing (HPC) for Earth System" by the Seismological Research Centre of the National Institute of Oceanography and Applied Geophysics – OGS.

Description of the activities

The grant is part of the training program of the PNRR Plan for RETURN Partnership. The research activity involves the development, application and implementation of high-performance computational methodologies applied to the study of the Earth System. The activity is aimed at contributing to the research lines described in detail in the scientific plan of the PNRR extended partnership program RETURN - VS3 "Earthquake and volcanoes" WP2 "Innovation in multiparametric monitoring on volcanoes." The activities carried out will be as follows:

1. Detection and characterization of volcanic events and tremors;
2. Development of parallel solvers on Cloud and GPU;
3. Development and use of artificial intelligence-based applications.

Art. 1 – Vacancies and general part

The National Institute of Oceanography and Experimental Geophysics - OGS, in order to comply with its activities within the framework of RETURN - multi -Risk sciEnce forresilienT commUnities under a changiNg climate" (CUP F83C22001660002) funded by the European Union - Next Generation Unit, announces a public selection by qualifications and interview for the award of no. 1 professionalizing research grant on "Artificial Intelligence and High Performance Computing for the Earth System" for the Seismological Research Centre of the National Institute of Oceanography and Experimental Geophysics - OGS.

SCIENTIFIC DISCIPLINARY SECTOR: - GEO/10 - SOLID EARTH GEOPHYSICS

- GEO 11 -APPLIED GEOPHYSICS

According to art. 22, paragraph 1 of the Law no. 240/2010, officials or permanent members of staff working for Italian Universities and Public Research Bodies (OGS included) are not eligible to take part in the selection and are therefore automatically excluded.

The research fellowship may not be combined with any other fellowships except for those awarded by national or international institutions aimed at integrating the research activity of the grantees with stays abroad.

The research fellowship is compatible neither with the participation in degree courses, master's degrees, fellowship PhD, in Italy or abroad, nor with fixed-term or permanent contracts, except for unpaid leave from work.

OGS may not pay any additional payments to grantees.

This selection notice is available on the OGS institutional web page at <https://www.ogs.it/it/concorsi> together with all the information, news and notices referred to this Call.

Art. 2 – Duration and salary amount

The fellowship will have a duration of 12 months and may be renewed. On request by the scientific Tutor, the fellowship renewal may be proposed by the Director of the Seismological Research Centre to the OGS General Director. Even in the case of any possible renewals, the duration of the fellowship cannot exceed six years. The total duration of the fellowships also includes the fellowships implemented in other organizations or universities, with the exception of the time during which the fellowship overlapped a PhD course (not paid) to a maximum duration of the course itself.

The fellowship cannot be awarded to applicants who have already benefited from a fellowship, further renewals included, for a period of six years, with the exclusion of the above-mentioned paragraph.

In the case that the successful applicant has already benefited from fellowships for a period of less than six years, the annual research fellowship and/or its possible renewal shall be granted within the above-mentioned termination.

The gross annual salary of the research professionalizing fellowship, net for charges borne by OGS and including the social security contributions concerning the part borne by the grantee, is equal to € 21,000.00 and shall be paid in monthly instalments.

From the third year, the annual amount of the fellowship, net for charges borne by OGS and including the social security contributions concerning the part borne by the grantee, will be re-modulated for the total amount of € 23,000.00, when there is financial provision and subject to the positive evaluation of the research activities of the fellow by a Selection Board appointed by the Director of the Section/Department and consisting of the same Director of the Section/Department, the person in charge of the research project and an expert in the field.

The amount of the fellowship does not include any possible allowance for missions in Italy and abroad which may be deemed necessary for the implementation of the research activities connected to the fellowship. The mission allowance is determined in proportion to the allowance paid to the OGS staff belonging to the III professional level.

Fiscal and social security regulatory provisions in force are applied to all fellowships.

Art. 3 – Requirements

The requirements for the admission to the public selection are:

- Master's Degree Physics, Mathematics, Engineering, Earth science, or Computer science, obtained in accordance with the current Italian legislation prior to the Ministerial Decree 509/99 or Master's Degree within Ministerial Decree 270/04 in all assimilated classes pursuant Interministerial Decree dated 9th July 2009 and according to the table annexed to the decree itself, obtained at Italian universities or degrees issued by Universities abroad;
- suitable scientific-professional curriculum vitae);
- good knowledge of the English language.

Candidates who obtained a qualification abroad that has been declared equivalent by the Italian competent educational authorities or validated according to the rules in force (Art. 38 Legislative Decree 165/2001), are admitted to participate in the call.

The candidate without such requisite at the date of the application shall submit a detailed documentation concerning his/her education in order to allow the Selection Board to evaluate the application limited to the present call for applicants.

The admission requirements must be fulfilled at the date of publication of this notice of recruitment.

Art. 4 – Application form: terms and conditions

The application forms for the participation in the Call shall be sent on simple paper, according to the form herewith attached (Annex 1), signed with handwritten or digital signature and sent by one of the following options:

- By personal PEC (Electronic Certified Email), in conformity with the current legislation on the matter, to the following PEC address: ogs@pec.it

Please note: the maximum PEC size limit is **30 MB**. Should the attachments exceed this limit the candidate has to send more than one e-mail (indicating in the subject the e-mail number, for example: "Name, surname, title of the Call, e-mail no. X out of Y"). Files with ".zip" extension are **not** accepted.

Only and exclusively for non-national candidates: application forms for the participation in this Selection shall be filled out according to the form herewith attached (Annex 1), signed with handwritten or digital signature, and sent:

- By e-mail, to the following e-mail address: protocollo@ogs.it.

Please note: the maximum e-mail size limit is **30 MB**. Should the attachments exceed this limit the candidate has to send more than one e-mail (indicating in the subject the e-mail number, for example: "Name, surname, title of the Call, e-mail no. X out of Y"). Files with ".zip" extension are **not** accepted.

The application form must be sent at the latest **by 11.59 pm** on the closing date.

If the last day for the submission of applications is a Sunday or a public holiday, the deadline shall expire at 11.59 pm on the first following working day.

All the communications related to the procedure shall be sent to the personal PEC / e-mail of the applicant. The applicant is directly responsible in case of failed delivery of the notifications. OGS assumes no responsibility for the incorrect indications of PEC / e-mail address or for missed or late notification of change in the PEC / e-mail address.

Different methods of delivery will not be accepted.

Under his/her own responsibility, the candidate must declare the following information:

- Surname and name;
- Place and date of birth;
- Residence (address, city, province/state, zip code, country);
- Citizenship;
- Not have been convicted or found guilty of any criminal offence, or, if any, what kind of criminal offence the candidate has been found guilty;
- To be in possession of the required qualifications, with all the details concerning date, place of issue, final mark;
- The candidate's position with reference to the awarding of other fellowships;
- To be in possession of the further requirements as per art. 3 of this Call;
- The chosen address for the Call.

The candidate shall attach to the application form the following documents:

- A **Curriculum Vitae et Studiorum** (possibly in European format) written either in Italian or English, dated and signed with handwritten or digital signature; in the CV the applicant shall include all the useful information for the evaluation. **at the bottom of the curriculum, the following statements should be included:**
 - o "The information contained in this curriculum vitae is made under the personal responsibility of the undersigned in accordance with Articles 46 and 47 of Presidential Decree no. 445 of 28.12.2000, aware of the criminal responsibility provided for in Article 76 of the same Presidential Decree no. 445 of 28.12.2000, for the hypotheses of falsity in deeds and false statements";
 - o "I authorize the processing of my personal data in the curriculum vitae in accordance with Legislative Decree no. 196 of June 30, 2003 "Code on the protection of personal data" and Article 13 of the GDPR (EU Regulation 2016/679)".
- **Qualifications and documents** that will be considered useful by the applicant to submit to the Selection Board. These qualifications and documents shall be specified by filling in either a self-declaration affidavit in accordance with art. 46 of the Presidential Decree dated 28.12.2000, no. 445 ([Annex 2](#)), concerning the degree obtained, or a self-declaration affidavit, in accordance with art. 47 of the Presidential Decree dated 28.12.2000, no. 445 ([Annex 3](#)), concerning, for example, the implemented research activities, the list of publications, etc.
- **A copy of a valid Identity Document.**

Special needs candidates, with reference to their own disability, shall mention their specific request for assistance in the application form.

Art. 5 – Exclusions

Candidates are admitted to the selection provisionally. The Human Resources Department has the faculty to exclude a candidate at any time in case of lack of the above-mentioned requirements by providing a valid justification. Applicants will be notified of their exclusion from the selection procedure within 5 days from the exclusion provision.

Art. 6 – Selection Board

The Selection Board shall be appointed by the OGS General Director and shall be composed of three members, including the scientific Tutor.

The Selection Board may carry out the evaluation procedure with the aid of videoconference tools, ensuring in any case the complete communication security and traceability.

The session is open and closed by the President, who governs its execution and could suspend it in every moment, where necessary. The President has the duty of checking, before the start of the meeting, the participants' identity and assessing the presence of the required conditions of participation. These elements will be specified in the minutes, together with the indication of the technologies used by each member.

The Selection Board shall close the selection procedure within six months from the date of its first meeting. Should the Selection Board fail to respect this term, it shall collectively write a valid justification to the OGS General Director.

Art. 7 Evaluable qualifications, interview, and ranking list

The selection is based on qualifications and interview.

The Selection Board can assign up to 100 points, divided as follows:

- 30 points for the evaluation of the qualifications
- 70 points for the interview.

In order to pass the interview, the candidate should obtain a minimum score of 49/70.

QUALIFICATIONS (max 30 points out of 100)

The Selection Board preliminary adopts the criteria and the parameters to which it intends to apply, with specific reference to the characteristics of the research project.

The evaluating titles are:

- Ph.D. title connected to the subject of the present call;
- Scientific and methodological experience in public or private scientific institutions based on contracts, fellowships or assignments, both in Italy and abroad in the subject of the call;
- Attendance to *post lauream* professional courses, either in Italy or abroad;
- Publications, scientific articles, technical scientific reports;
- Knowledge and use of scientific programming languages.

In particular, a Ph.D. title, or an equivalent title obtained abroad, would be considered as an asset for the purpose of awarding the fellowship.

After the qualifications have been evaluated, the Selection Board makes a shortlist of applicants who will be invited to the interview.

The list of applicants admitted to the interview and details on date, time and place will be published at least 20 days prior on the website of OGS at <https://www.ogs.it/it/concorsi>

Such publication effectively constitutes an official notification.

INTERVIEW (max 70 points out of 100)

The interview may take place by means of videoconference call, ensuring anyway the adoption of technical solutions that guarantee the disclosure and transparency, the participant's identification, and the communication security.

The interview will focus on general themes related to the profile of the present Call, on the past experiences and the possible publications submitted. The interview could be held in English.

For the interview the candidates shall present a valid identification document.

The candidates who will not be present at the interview, or those who will not be connected in videoconference Call according to the indications given by OGS, should the interview take place this way, will be excluded from the competition.

In order to pass the interview, the candidate should obtain a minimum score of 49/70.

After completion of the interviews, the Selection Board prepares a ranking list, with all the final scores obtained by each candidate, in descending order.

Candidates ranking list is drawn up according to the overall votes each candidate received. In the case of candidates with the same score, the preference will be attributed to the younger candidate.

The ranking lists with the indication of the fellowship winner will be published by the President of the Selection Board on the OGS website at the following page: <https://www.ogs.it/it/concorsi>

Such publication effectively constitutes an official notification.

Art. 8 – Ranking list approval and appointment of the fellowship winner

The Responsible of the Human Resources Department, once verified the formal validity of the documents transmitted to the Selection Board, approves the ranking list and appoints the fellowship winner.

The ranking lists shall remain valid for 18 months after the date of approval.

In case of formal renunciation of the winner, or if the winner does not accept the fellowship within the prescribed period according to art. 9 of the present Call, the fellowship shall be awarded to the next eligible candidate in the ranking list.

The fellowships available following renunciation or resolution of the fellowship winner may be awarded to the candidates indicated in the ranking list within the limits of its duration.

Art. 9 – Awarding of the fellowship

The OGS General Director, in compliance with the current legislation on the matter, awards the research fellowship to the fellowship winner. The fellowship winner will be duly notified of the result and shall send an official declaration of acceptance of the fellowship within 15 days after acknowledgement of receipt of the notice. Once obtained the declaration of acceptance from the winner candidate, a contract between the OGS General Director and the fellowship winner is prepared and signed. This contract states the terms and conditions of the cooperation, together with the research activities to be carried out.

Concerning taxation all the regulatory provisions referred to art. 4 of the Law dated August 13 1984 no. 476 are applied to research fellowships and, in terms of social security, the applicable law is referred to art. 2, paragraphs 26 and following, Law no. 335 dated August 1995 and subsequent amendments; for maternity leave matters the applicable law refers to provisions as per Ministerial Decree dated July 12 2007, published on the Official Journal no. 247 dated October 23 2007 and for matters concerning sick leave, art. 1 paragraph 788 of Law no. 296 dated December 27 2006 and subsequent amendments. During the maternity leave, the allowance paid by the Italian Social Security Institute (INPS) with reference to art. 5 of the above-mentioned decree dated July 12, 2007, is integrated by OGS up to the total amount of the research fellowship.

Art. 10 – Implementation of the research activities

The activities of the fellowship holder are carried out in complete autonomy and with no scheduled working time, within the specific research programme and according to the guidance provided by the scientific tutor.

The scientific tutor must coordinate the activities of the fellowship holder together with those of other participants in the programme, by providing all the necessary indications for the implementation of the activity object of the collaboration.

The activity of the fellowship holder is never considered a status of employment.

Art. 11 – Fellowship obligations

The fellowship holder must carry out the commitments envisaged by the research programme prepared by the scientific tutor and under his/her supervision. At the end of the fellowship the holder must submit to OGS a final research report that includes the obtained results. The report must be approved by the tutor.

All technical, scientific, and administrative data and information gathered by the fellowship holder during the implementation of the activity shall be considered confidential, therefore, it is not allowed to use such information for purposes different than those for which the fellowship has been awarded.

Concerning the protection of the intellectual property of the results or products obtained on the performance of the activity of the fellowship please refer to OGS regulations on patents and protection of intellectual property.

Art. 12 – Personal data management

In accordance with Article 13 of the EU General Data Protection Regulation 2016/679 (GDPR), candidates are informed that their personal data, provided by applying to this selection or to this end collected by the National Institute of Oceanography and Applied Geophysics – OGS (from now on, “OGS” or “the Controller”) will be exclusively collected and treated by authorised individuals, Selection Board included, for purposes strictly connected to the selection procedure, with or without the aid of electronic tools, even in case of possible communication to third parties or diffusion (e.g. ranking list publication for transparency purposes).

These treatments by OGS are legitimate as are necessary for the performance of contracts or of pre- contractual measures adopted upon request of the candidate, in compliance with a legal obligation to which OGS is subject, or for its own interest.

According to art. 15 et seq. of the above-mentioned Regulation 2016/679, the candidates have the right of access their personal data, the right of limitation and rectification, as well as the right of opposition and the right to delete their data, for legitimate reasons.

These rights may be exercised against the National Institute of Oceanography and Applied Geophysics – OGS (Data Controller) with head office in Borgo Grotta Gigante 42/c 34010 Sgonico (TS).

In order to exercise the rights recognized by the Regulation 2016/679, or for any information related to the personal data treatment, it is possible to contact the Data Controller at the following e-mail address: privacy@ogs.it. The Data Protection Officer appointed by OGS can be contacted at the following e- mail address: dpo@ogs.it

Art. 13 – Responsible of the Proceedings

In accordance with art. 5 of the Law dated 7/08/1990 no. 241, the Responsible of the Proceedings is Dott.ssa Paola Del Negro – General Director of OGS: direzione@ogs.it

Art. 14 – Accessibility

This Call for individual fellowship will be posted on the OGS website, on the Call’s website of MIUR and on the European Commission Internet portal Euraxess.

Art. 15 – Right of access

The right of access to the documents regarding this procedure may be exercised according to the indications of the Law dated 7/08/1990 no. 241 and subsequent amendments. For information on this matter, refer to the OGS Recruitment Office: concorsi@ogs.it

The requests of access will be published on the OGS website www.ogs.it, in the job’s opportunities section dedicated to this selection. This publication fulfils the obligation of informing the persons concerned.



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OGS

Istituto Nazionale
di Oceanografia
e di Geofisica
Sperimentale

Art. 16 – Final Proceedings

Anything not envisaged by the articles of this Call shall be regulated by the OGS “*Assegni di Ricerca Rules and Regulations*” approved by the Board of Directors with Resolution n. 83 dated 15/06/2017.

Annex 1

Application form

To: Istituto Nazionale di Oceanografia
e di Geofisica Sperimentale – OGS
Località Borgo Grotta Gigante, 42/c
34010 Sgonico – TS
ogs@pec.it

Call 39/2022 - Public selection based on qualifications and interview for n. 1 Professionalizing Fellowship on the field of " Artificial Intelligence (AI) and High Performance Computing (HPC) for Earth System" by the Seismological Research Centre of the National Institute of Oceanography and Applied Geophysics – OGS.

The undersigned (name) _____ (surname) _____

Born in (City/State/Country) _____ on _____

and resident in _____ address _____

n. _____, Prov./State _____ zip Code _____ country _____

requests to participate in the present selection.

For this purpose, the applicant declares under his/her own responsibility:

a) citizenship _____

b) not have been convicted or found guilty of any criminal offence (if any, please specify):

c) to hold a Master's Degree (please cross the type of degree you hold)

preceding university's reform pursuant Ministerial Decree no. 509/99

master's degree pursuant Ministerial Decree no. 509/99

master's degree pursuant Ministerial Decree no. D.M. 270/04

in _____ obtained on date _____
from the University of _____
with the score of _____ / _____

if the qualification is obtained abroad

to have already obtained the recognition of the equivalence as per Art. 38 of the Legislative Decree dated March 30 2001, n. 165, in view of the documents annexed to the application

or

to have already applied for the recognition of the equivalence as per Art. 38 of the Legislative Decree dated March 30 2001, n. 165, in view of the documents annexed to the application

or



- to present the following detailed documentation of the attended training in order to allow the selection board to assess the recognition of equivalence only for the purposes of the applicant's participation in the mentioned Call _____

 _____;

- 1. no fellowships have been awarded before;
- 2. the following fellowships have been awarded:

from _____ to _____
 at _____
 from _____ to _____
 at _____
 from _____ to _____
 at _____

- 3. to currently hold a fellowship

from _____ to _____
 at _____

- 4. to possess the further requirements included in the art. 3 of the present Call;

- to hold the following titles that may be evaluated:

To attach to this form:

to wish to receive all communication referring to this Call to the following address:

(street) _____
 (town) _____
 (ZIP code) _____
 Telephone _____
 e-mail _____
 pec _____

For the purpose of this procedure, I authorize, in accordance with Legislative Decree No. 196 of June 30, 2003 "Code for the Protection of Personal Data" and the GDPR (EU Regulation 2016/679), the processing of personal data concerning the application for participation in this selective procedure and its annexes.

Date _____

Signature



The undersigned _____

For participating in this Call no. _____ requests to take the exam in one of the following languages:

- Italian
- English

Signature



SELF DECLARATION AFFIDAVIT
(art. 46 Presidential Decree 28.12.2000 no. 445)

The undersigned (name) _____ (surname) _____
Born in (City/State/Country) _____ on _____
and resident in _____ address _____
n. _____, Prov./State _____ zip Code _____ country _____

aware that false declarations are punishable by law (art. 76 Presidential Decree 28.12.2000 no. 445)

DECLARES

5. to hold a degree (please cross the type of degree you hold)

- preceding university's reform pursuant Ministerial Decree no. 509/99
- master's degree pursuant Ministerial Decree no. 509/99
- master's degree pursuant Ministerial Decree no. D.M. 270/04

in _____ obtained on date _____
_____ from the University of _____
with the score of _____ / _____

- to be in possession of the PhD in _____
_____ obtained on date _____
from the University of _____
or

6. to be enrolled on a PhD course in _____
by _____
from _____ and to have completed no. of year(s) _____

- to be in possession of the following title of specialisation or certificate of attendance to a post lauream specialisation course _____
obtained on date _____ issued by _____
with the score of _____.

The undersigned also declares that he/she has been informed that, in accordance with current legislation, personal data will be treated, by computer tools also, exclusively within the object for which the declaration has been drawn up.

Date _____

Signature



SELF DECLARATION AFFIDAVIT
(art. 47 Presidential Decree 28.12.2000 no. 445)

The undersigned (name) _____ (surname) _____
Born in (City/State/Country) _____ on _____
and resident in _____ address _____
n. _____, Prov./State _____ zip Code _____ country _____

aware that false declarations are punishable by law (art. 76 Presidential Decree 28.12.2000 no. 445)

DECLARES¹

_____ (1)

The undersigned also declares that he/she has been informed that, in accordance with current legislation, personal data will be treated, by computer tools also, exclusively within the object for which the declaration has been drawn up

Date _____

Signature

(1) The declarant shall send attached to the declaration **a copy of a valid identification document.**

¹ Purely as an example:

the copy of the following title or document or publication attached to the application form of no. _____ pages is a true copy of the original.