



Call 17/2021

Announcement of public selection based on qualifications and interview for no. 1 research grant in the field of “High Performance Computing for Earth Sciences”, by the Seismological Research Center – CRS of the National Institute of Oceanography and Applied Geophysics – OGS.

Description of the activity

The grant is awarded in the frame of the OGS-CINECA agreement for the implementation of the Training Program HPC-TRES. The activity is focused to the acquisition of specific competences in the field of High Performance Computing (HPC) applied to Earth Sciences modelling, preferably in the frame of the research line B1 “Numerical simulation of earthquake ground motion in three-dimensional models of the Earth's crust” described in the scientific plan of the HPC-TRES program (please consult the last version on the website of HPC-TRES program: <https://www.inogs.it/en/content/hpc-training-and-researchearth-sciences-hpc-tres>). The candidate will improve the knowledge in parallel programming paradigms, with particular interest to optimization methodologies, scaling, and implementation of numerical codes used in Earth Science applications on HPC facilities of class Tier-1 and Tier-0, also in an exascale perspective.

Art. 1 – Vacancies and general part

A public selection based on qualifications and interview is open to award no. 1 research grant in the field of “*High Performance Computing for Earth Sciences*”, by the Seismological Research Center – CRS of the National Institute of Oceanography and Applied Geophysics – OGS.

SCIENTIFIC DISCIPLINARY SECTOR: GEO/10 (Solid Earth Geophysics)

The grant is neither compatible with any other type of grants, nor with fellowships or allowances of similar nature. Furthermore, the grant is not compatible with permanent private or public employment, with the exception of 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.inogs.it/it/job-opportunities> together with all the information, news and notices referred to this Call.

Art. 2 – Duration and amount of the Research Grant

The grant will have a duration of 12 months and may be renewed. On request by the scientific Tutor, the grant renewal may be proposed by the Director of the Seismological Research Center - CRS to the General Director of OGS. Even in case of possible renewals, the duration of the grant cannot exceed three years.

The annual grant salary (12 months), net of charges borne by OGS, amounts to € 14.400,00 and shall be paid in monthly instalments. All expenses connected to travel, board and lodging, will be reimbursed to the grantee when carrying out the activities out of the OGS headquarters in proportion to the allowance paid to the OGS staff belonging to the 3rd professional level.

The grant is subject to the applicable tax regulations and it is exempt from social security deductions.

Art. 3 – Requirements for the admission

The requirements for the admission to the public selection are:

- To be under the age of 30;
- To hold a Master's degree in scientific disciplines as per Ministerial Decree no. 270/04 in all assimilated classes pursuant Interministerial Decree dated 9th July 2009 and according to the table

annexed to the same Decree, obtained by Italian Universities or degrees issued by Universities abroad;

- To have a 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 present a detailed documentation concerning his/her education in order to allow the selection board to evaluate the application limited to the present Call.

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 in simple paper, according to the form herewith attached (Annex 1), signed with handwritten or digital signature by the applicant and sent by one of the following options:

- a) By personal PEC (Electronic Certified Email), in conformity with the current legislation on the matter, to the following PEC address: ogs@pec.it.
The application form must be sent at the latest **by 12.30** (half past midday) on the closing date.
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"). Files with **".zip"** extension are **not** accepted.

Only and exclusively for non-national candidates, applications to the call drafted on plain paper and in accordance to the table in annex to the present call (Annex sub 1), with the applicants' handwritten or digital signature according to the usual European standards, may also be sent:

- b) By e-mail, to the following e-mail address: protocollo@inogs.it.
The application form must be sent at the latest **by 12.30** (half past midday) on the closing date.
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"). Files with **".zip"** extension are **not** accepted.

Any other way of sending and submitting applications is excluded.

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

- Surname and name;
- Place and date of birth;
- Residence;
- Citizenship;
- Not have been convicted or found guilty of any criminal offence, or, if so, what kind of criminal offence the candidate has been found guilty;
- To be in possession of the requested qualifications, with the indication of all the details concerning date, place of issue, final mark;
- To be in possession of the other requirements as per art. 3 of this Call;
- The chosen address for the Call.

The candidate shall attach to the application form the **Curriculum vitae** (dated and signed).

The candidate may also attach all documents and qualifications that he/she deems appropriate to present in his/her own interest.

The candidate shall also attach to the application:

- 1) Self-declaration affidavit in accordance with art. 46 Presidential Decree dated. 28.12.2000, no. 445 (Annex 2), concerning the degree or the PhD obtained;
- 2) Self-declaration affidavit, in accordance with art. 47 Presidential Decree dated 28.12.2000, no. 445 (Annex 3), concerning the curriculum vitae and other possible documents, certificates, qualifications.

The self-declaration affidavit shall be accompanied by a **copy of a valid identity document**.

Application forms not accompanied by the self-declaration affidavit as per point 1) and point 2), filled in accordingly, will not be considered.

Candidates with disabilities, with reference to their own disability, shall mention their specific request for assistance in the application form.

Art. 5 – Exclusions

The following reasons constitute ground for ex-officio exclusion:

- Applications not submitted within the fixed deadline referred to in Art. 4;
- Applications sent by means other than that referred to in Art. 4;
- Partial or total omission of the information requested as per Art. 4;
- Being in one of the conditions referred to in Art. 1, paragraph 2;
- Fail to submit the application form duly signed;
- Fail to submit a copy of a valid identification document attached to the application form;
- Fail to comply with any of the requirements as per art. 3;
- Fail to attach the self-declaration affidavit as per art. 4, point 1) and point 2).

Candidates are admitted to the selection with right to reserve approval. The Responsible of the Human Resources Department – Recruitment Office has the faculty to exclude a candidate at any time in case of lack of the above-mentioned requirements by providing a valid justification.

If the motivations that determined the exclusion are verified after the completion of the selection, the Director General, with a valid justification, provides automatic forfeiture of any rights connected to the participation in the selection itself.

Exclusion of candidates shall also be applied in case of failure in presenting inaccurate declarations requested by the application form in accordance with Presidential Decree dated 28.12.2000, no. 445.

Art. 6 – Selection Board: evaluation of qualifications, interview and ranking list

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

In application of art. 249 of the Decree dated 19th May 2020 n. 34, converted in Law no. 77 on 17th July 2020 with amendments, 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 Selection Board can assign up to 100 points, divided as follows: 30 points for the evaluation of the qualifications and 70 points for the interview.

Only candidates obtaining at least 21/30 points in the first evaluation will be admitted to the interview.

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

Qualifications

The evaluating titles are:

- Master's Degree final mark and accordance to the subject of the Call;
- specialization diplomas and certificate of attendance to post lauream training courses, both in Italy and abroad;
- implementation of research activities by public or private organisations, based on contracts, fellowships or assignments, both in Italy and abroad;
- certificate of pre-enrollment or enrollment in post-graduate specialization course in the field of high-performance computing;
- knowledge and experience in modeling in geophysical sciences;
- knowledge and use of at least one programming language that is widespread in the scientific field;
- scientific and/or technological activities and publications.

Interview

The interview will be based on the subjects related to the profile requested in the present Call and on any experience or activity carried out by the candidate.

The interview will take place as per art. 12 of the present selection notice and according to the connection guidelines that shall be provided by OGS. The interview could be held in English.

The candidates who will not be connected according to the indications given by OGS, will lose any right to participate and will therefore be disregarded.

For the interview the candidates shall present a valid identification document. Candidates failing to present a valid identification document or in possession of expired ID cards will not be admitted to the interview.

The interview is considered as "passed" if the applicant gets the minimum score of 49/70.

Ranking list

At the end of the interview, the Selection Board makes a shortlist with the indication of the final score, in descending order, obtained by the candidates.

The selection is considered as passed if the applicant obtains the minimum score 70/100 points.

The ranking list with the indication of the grant winner or winners will be published with the same forms of advertising provided for the Call.

Such publication constitutes effectively an official notification.

Art. 7 – Ranking list approval and appointment of the grant winner

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

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

In case of formal renunciation of the grant winner, or if the grant winner does not accept the grant within the prescribed period according to Art. 8 of the present Call, the grant shall be awarded to the next eligible candidate in the ranking list, following the score order, within the limits of the above-mentioned list duration.

Art. 8 – Awarding of the grant

The OGS General Director, in compliance with the current legislation on the matter, awards the research grant to the grant winner.

The grant winner will be duly notified of the result and shall send an official declaration of acceptance of the grant 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 grant winner is prepared and signed. This contract states the terms and conditions of the cooperation, together with the research activities to be carried out.

Art. 9 – Implementation of the research activities

The activities of the grant 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 grant holder activities are never considered as dependent employment.

The grant does not entail any social security treatment or can be used for the evaluation of legal and economic careers.

Art. 10 – Obligations of the grantee and evaluation of the research activity

The grant holder must carry out the commitments foreseen by the research programme prepared by the scientific Tutor and under his/her supervision. At the end of the grant, the grant holder shall submit to OGS a final research report that includes the obtained results, accompanied by the evaluation of the scientific Tutor that shall be countersigned by the Director of the Section. Upon formal request of the grant holder, the implemented activities may be submitted to a duly designated Selection Board for evaluation.

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

With regard to the protection of the intellectual property of the results or products obtained on the performance of the activity of the grant, please refer to OGS Rules and Regulations on patents and protection of intellectual property.

Art. 11 – Personal data management

Data Controller: National Institute of Oceanography and Applied Geophysics – OGS.

Data protection Officer: dr. Luca Zenarolla – dpo@inogs.it

In accordance with Article 13 of EU Regulation 2016/679, required personal data will be exclusively collected and treated for purposes strictly connected to the selection procedure, with or without the aid of electronic tools, according to current law and regulations concerning the implementation of this kind of activity.

Providing such data to OGS is necessary for the evaluation of participation requirements and of the holding of titles: failure to provide these data may compromise such evaluation.

Data will only be kept for the period required by the selection, and successively for storing purposes only.

Art. 12 – Provisional extraordinary regulations

According to Decree Law dated 19.05.2020 n. 34, "*Urgent measures on health, support to work, the economy and social policies related to the epidemiological emergency from COVID-19*" which was converted into Law n. 77/2020, and in particular art. 249 "*Simplified, decentralized and online public administrations recruitment procedures*", and pursuant to Decree Law dated 1° April 2021, n. 44, and in particular art. 10,

“Measures for the implementation of recruitment competitions in public administrations”, which states that public administrations may apply simplified exam procedures as an exception to DPR 487/94 and Law n. 59/2019, ensuring in any case the comparative system application. Public administrations may therefore use computer and digital tools, and interviews may be held by means of videoconference call ensuring anyway the adoption of technical solutions that guarantee the principle of publicity, the participant’s identification, the communication security and its traceability, in compliance with personal data and privacy protection regulations and in the limit of relevant available resources of current legislation.

In this regard, the Selection Board will publish on the OGS website specific indications on the system requirements necessary for the connection of every person interested in taking part.

Art. 13 – Final proceedings

For matters not covered by this selection notice please refer to the OGS Grant and Research Fellowship Rules and Regulations. This Call for research grant will be posted on the OGS website and on the European Commission Web portal - Euraxess.

In accordance to the Law dated 7/08/1990 no. 241 art. 5, the Responsible of the Proceedings is dr. Marzia Micottis - Human Resources Department.

Application form

*To: Istituto Nazionale di Oceanografia
e di Geofisica Sperimentale – OGS
Località Borgo Grotta Gigante, 42/c
34010 Sgonico – TS*

Call 17/2021 – Announcement of public selection based on qualifications and interview for no. 1 research grant in the field of “High Performance Computing for Earth Sciences”, by the Seismological Research Center – CRS of the National Institute of Oceanography and Applied Geophysics – OGS.

The undersigned (name) _____ (surname) _____
born _____ (Province _____) on _____
and resident in _____ address _____ n. _____
requests to participate in the selection of the Call in object.

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

- citizenship _____
- not have been convicted or found guilty of any criminal offence (please specify, if any)

- to hold a degree (please cross the type of degree you hold)
 - ☐ master's degree (*Specialistica*) pursuant Ministerial Decree no. 509/99
 - ☐ master's degree (*Magistrale*) 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 for applicants _____

- to possess the further requirements included in the art. 3 of the present call;
- to hold the following titles that may be evaluated:

Also attached to this form:

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

(street) _____

(town) _____

(ZIPcode) _____

Telephone _____

e-mail _____

Date _____

Signature



OGS
Istituto Nazionale
di Oceanografia
e di Geofisica
Sperimentale

The undersigned _____

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

- ☐ Italian
- ☐ English

Signature



OGS

Istituto Nazionale
di Oceanografia
e di Geofisica
Sperimentale

Annex 2

SELF DECLARATION AFFIDAVIT

(art. 46 Presidential Decree 28.12.2000 no. 445)

The undersigned (name) _____ (surname) _____
born _____ (Province _____) on _____
and resident in _____ address _____ n. _____
aware that false declarations are punishable by law (art. 76 Presidential Decree 28.12.2000 no. 445)

DECLARES

- to hold a degree (please cross the type of degree you hold)
 - ☐ master's degree (*Specialistica*) pursuant Ministerial Decree no. 509/99
 - ☐ master's degree (*Magistrale*) pursuant Ministerial Decree no. D.M. 270/04

in _____ obtained on date _____
_____ from the University of _____
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 _____ (province _____) on _____
and resident in _____ address _____ no. _____
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.