

### Call 21/2018

Announcement of public selection based on qualifications and interview for no. 1 junior fellowship in the field of "Development of software for numerical modeling of electromagnetic wave propagation", by the scientific section "Geofisica" – GEO of the Istituto Nazionale di Oceanografia e di Geofisica Sperimentale – OGS.

#### Description of the activity

The main task of the applicant will be the improvement of the current implementation of software code available in OGS for numerical modeling of electromagnetic wave propagation (Ground Penetrating Radar) and development of new code to simulate the response of the Dualem ® instrument. Software code optimization and the implementation of parallel programming methods are required, with the aim of reducing the computational time.

#### Art. 1 - Vacancies and general part

A public selection based on qualifications and interview is open to award no. 1 junior research fellowship in the field of "Development of software for numerical modeling of electromagnetic wave propagation", by the scientific section "Geofisica" – GEO of the Istituto Nazionale di Oceanografia e di Geofisica Sperimentale – OGS – Scientific Disciplinary Sector GEO/11, GEO/10.

Officials belonging to Italian Universities, Public Research Bodies (OGS included), ENEA and ASI are not eligible to take part in the selection and are therefore automatically excluded.

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

The holder of the fellowship is not compatible with the participation in degree courses, master's degrees, fellowship PdD, in Italy or abroad both on fixed-term or full-time, with the exception of unpaid leave from work.

OGS may not pay any additional payments to grantees.

A copy of this selection notice is available by the OGS Headquarters as well as on the OGS institutional web page at <a href="http://www.ogs.trieste.it/it/job-opportunities">http://www.ogs.trieste.it/it/job-opportunities</a>.

All information, news and notices referred to this call may be found at <a href="http://www.ogs.trieste.it/it/job-opportunities">http://www.ogs.trieste.it/it/job-opportunities</a>.

## Art. 2 - Duration and salary amount

The fellowship will have a duration of 12 months and cannot be renewed automatically. On request from the Tutor, the fellowship renewal may be proposed by the Director of the Section where the fellowship holder is implementing the research activities to the General Director of OGS. The renewal proposal shall be accompanied by a short report written by the fellowship holder detailing the implemented activities and which should be countersigned by the Tutor.

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 time of six years, with the exclusion of the above-mentioned paragraph.

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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 junior fellowship, net for charges borne by OGS and including the social security contributions concerning the part borne by the grantee, is equal to € 25.000,00 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 remodulated for the total amount of € 27.000,00, 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 and consisting of the same Director of the Section, 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:

- Degree obtained in accordance with the current legislation before Ministerial Decree no. 509/99 in Physics, Geological Sciences, Geophysics, Computer Engineering, Electronic Engineering, Computational Science or Master's Degree as per Ministerial Decree no. 270/04 in all assimilated classes pursuant Interministerial Decree dated July 9 2009 and according to the table annexed to the same Decree obtained by Italian Universities or degrees issued by Universities abroad;
- A suitable scientific CV;
- At least two years of research activities in:
  - Programming language Fortran95;
  - Parallel programming methods (OPENMP, MPI)

or the enrolment to the third year of a PhD course in related disciplines to the present call;

- excellent knowledge of the English language;
- Knowledge of the Italian language (only for foreign applicants).

Candidates who have obtained a foreign qualification recognized as equivalent by the competent Italian education authorities, or have obtained such recognition in accordance with current Italian law (ex Article no.38 of Legislative Decree no. 165/2001) are also admitted. It is up to the candidate, at the risk of being excluded from the public selection, to demonstrate the aforementioned equivalence by producing the documents provision that recognizes it. The candidate who is not yet in possession of the equivalence act must declare in the application form that he has submitted the relative request. In this case the candidate will be admitted to the public selection with reserve, provided that the equivalence of the degree must be presented before the contract is signed.

The admission requirements must be fulfilled at the date 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 by the applicants and sent by one of the following options:

- <u>Hand delivery at</u> OGS Località Borgo Grotta Gigante 42/c – 34010 Sgonico (TS), Ufficio Affari Generali e Protocollo Room no. n.34, 1<sup>st</sup> floor, from Monday to Friday from 9.30 to 12.30 am.

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Application forms submitted in this way must be handed in at the latest by 12.30 (midday and a half) on the closing date.

The postmark date and time will serve as proof as well as the form filled in by the Ufficio Affari Generali e Protocollo of OGS;

By registered mail with notice of delivery to:

Istituto Nazionale di Oceanografia e di Geofisica Sperimentale - OGS

Ufficio Affari Generali e Protocollo (Room no.34, 1st floor)

Località Borgo Grotta Gigante, 42/c

34010 Sgonico - TS.

The application form shall be presented at the latest the fifth day following the date of closure of the call.

The official postmark date will serve as proof;

- By 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 handed in at the latest by 12.30 (half past midday) on the closing date;

- By email, to the following email address: protocollo@ogs.trieste.it.
- The application form must be handed in at the latest by 12.30 (half past midday) on the closing date.

Different methods of delivery will not be accepted.

The not undersigned applications as well as the applications received after the deadline will not be considered and excluded from the selection.

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 any, what kind of criminal offence the candidate has been found guilty;
- To be in possession of the requested qualifications, with all the details concerning date, place of issue, final mark;
- The candidate's position with reference to the award of other fellowships;
- To be in possession of further requirements as per art. 3 of this call
- Knowledge of the Italian language (only for foreign candidates)
- The chosen address for the call

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

- Scientific cv demonstrating relevant expertise for the implementation of the research activities (dated and undersigned);
- List of publications, certificates and any other qualification deemed useful to proof the candidate's expertise with reference to the present call (undersigned).

The candidate may attach all documents, qualifications and publications 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;

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2) Self-declaration affidavit, in accordance with art. 47 Presidential Decree dated 28.12.2000, no. 445 (Annex 3), concerning the scientific cv, the implemented research activities for at least two years and the list of publications.

As an alternative to the declaration as per paragraph 1) copy of the degree may be attached to the application form accompanied by the self-declaration affidavit certifying the exact copy of the original in accordance to art. 47 Presidential Decree dated 28.12.2000, no. 445 (Annex 3).

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

Application forms not accompanied by the self-declaration affidavit as per paragraph 1) or the copy of the degree certificate with the relative self-declaration affidavit will not be taken into consideration; Application forms not accompanied by the declaration as per paragraph 2), filled under the provisions thereof.

Special needs candidates, 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 under conditions other than those 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, paragraphs 2, 3 and 4;
- Fail to submit the application form;
- Failure to submit a copy of a valid identification document attached to the application form;
- Failure to comply with any of those requirements as per art. 3;
- Failure to attach the self-declaration affidavit as per art. 4, 1) as well as the self-declaration affidavit as per art. 4, 2).

Candidates are admitted to the selection with right to reserve approval. The Director of the Human Resources management 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: measurable qualifications, interview and ranking list

The Selection Board is appointed by an official Act of the General Director of OGS.

The Selection Board preliminary adopt 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:

- degree
- PhD title
- PhD course or equivalent
- 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 in the subject of the call.

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- Knowledge and use of the scientific programming languages Matlab ®, Python and bash scripting
- Knowledge of software such as GMT, Seismic Unix, Latex
- Experience in electromagnetic or seismic data analysis
- Scientific publications on peer-reviewed magazines.

In particular, for the purpose of awarding the fellowship, the PhD or any title obtained abroad would be considered as an asset.

The Selection Board may set a minimum score above and/or below which candidates may gain access to the interview. After the qualifications have been evaluated, the Selection Board may make a shortlist of applicants who will be invited to the interview. The candidates who will not obtain the minimum score will not will included in the shortlist of the applicants admitted 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 <a href="http://www.ogs.trieste.it/it/job-opportunities.">http://www.ogs.trieste.it/it/job-opportunities.</a>

Such publication constitutes effectively an official notification.

The interview may be both in English or Italian upon request of the candidate.

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.

After completion of the interviews, the Selection Board makes a shortlist in descending order of the final ranking obtained by the candidates.

The selection is considered as passed if the applicant obtains at least 7/10 or equivalent on the total points decided by the examining board.

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 list with the indication of the grant winner or winners will be published by the President of the Selection Board with the same forms of advertising provided in the call.

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

The Director of the Human Resources Department, once ascertained 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 fellowship 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.

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

## Art. 8 - Awarding of the fellowship

After budget and provisions verification, the OGS General Director, bestows the fellowship 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 above-mentioned notice.



Once obtained the declaration of acceptance from the winner candidate, a contract between the General Director of OGS and the grant winner is prepared and signed, a document which defines the terms and the research activities object of the collaboration.

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. 9 – 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 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 under any circumstances foreshadows a status of employment.

#### Art. 10 - Fellowship obligations

The fellowship holder must carry out the commitments foreseen by the research programme prepared by the scientific tutor and under his supervision. At the end of the fellowship the grant holder shall The fellowship 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 and therefore the use such information for purposes different that those for which the grant 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. 11 - Personal data management

In accordance with current legislation, personal data provided by candidates in the application form will be settled by the Head of Human Resources Office of OGS and processed for the only purpose of the assignment of the grant and the ensuing relevant procedures.

#### Art. 12 - Final proceedings

For matters not covered by this notice selection please refer to Grant and Research Fellowship rules of OGS. This call for individual grant will be posted on the OGS website, on the calls website of MIUR and on the European Commission Internet portal-Euraxess.

In accordance to the Law dated 7/08/1990 no. 241 art. 5 the Responsible of the Proceedings is the Director of the Human Resources Office.

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Annex 1

## Application form

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

Call 21/2018 –						
The unde	rsigned	(name) _				(surname)
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and resident in		addr	ess			n.
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	to have carried out the PhD course without fellowship (to be declared only in the case of fellows not awarded by the University)
	fromto
- 1	to have knowledge of the Italian language (only for foreign candidates)
	no fellowships have been awarded before
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Annex 2

## SELF DECLARATION AFFIDAVIT

(art. 46 Presidential Decree 28.12.2000 no. 445)

The u	ndersigned (name	e) (surname)		
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and	resident in _	address		no.
aware	——— e that false declara	rations are punishable by law (art. 76 Presidential Decree 28.12.200	00 no. 445)	
		DECLARES		
_	to hold a degree	e (please cross the type of degree you hold)		
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Date .				
		Signature		
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Annex 3

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

The undersigned (name)			(surname)				
DECLA	ARES						
				(1)			
•							
the following	title or	document	or	publication			
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(1) The declarant shall send attached to the declaration a photostatic copy of a valid identification

document.