DECREE 133/2020
Reg. no. 40901 – 13/02/2020

THE DIRECTOR

HAVING REGARD TO the Statute of the University of Brescia issued with Chancellor's Decree no. 68 of 2 December 2011;

HAVING REGARD TO Law no. 241 of 7 August 1990 “New regulations on administrative procedures and the right of access to administrative documents”;

HAVING REGARD TO Ministerial Decree of 4 October 2000 and subsequent additions and amendments “Redefinition and updating of the Scientific and Disciplinary Sectors and definition of the related declarations, pursuant to art. 2 of Ministerial Decree of 23 December 1999”;

HAVING REGARD TO Ministerial Decree no. 855 of 30 October 2015 “Redefinition of macro-sectors and competition sectors” which determined the new competition sectors pursuant to art. 15 of Law 240/2010;


HAVING REGARD TO Law no. 240 of 30 December 2010 and subsequent additions and amendments, and in particular art. 22 “Research grants”;

HAVING REGARD TO the Code of Ethics approved by the University Senate during the meeting of 17 May 2011;

HAVING REGARD TO the Regulations for the Award of Research Grants established by Chancellor's Decree no. 444 of 9 July 2018 and amended with Chancellor’s Decree no. 274 of 8 April 2019;

HAVING REGARD TO Resolution no. 8.1 of 5 February 2020 of the Board of the Department of Civil Engineering, Architecture, Territory, Environment and Mathematics concerning the launch of a research grant entitled: “Free Boundary Problems in Fluid Dynamics”;

Having regard to Ministerial Decree no. 102 of 09.03.2011, which sets the minimum gross annual research grant at € 19,367.04, as well as establishing the other costs to be borne by the Administration;

HEREBY DECREES
Art. 1  
NUMBER OF RESEARCH GRANTS

A public selection procedure is called, based on qualifications and interview, for the assignment of:

**N. 1 RESEARCH GRANTS**, for collaboration in research;

**Area 01: Maths and computer science**  
DEPARTMENT OF CIVIL ENGINEERING,  
ARCHITECTURE, LAND, ENVIRONMENT AND MATHEMATICS

**Title**  
FREE BOUNDARY PROBLEMS IN FLUID DYNAMICS

**Duration**  
12 months

**Research project and source of funds**  
PRIN2012 SECCHI  
RIC_ATENEO-16_SECCHI_EX60  
2017_RICERCA_EX60_GRUPPO_SECCHI

**Project Code**  
D88C13000480001

**Competition sector**  
01/A3 – Mathematical Analysis, Probability and Statistics

**Scientific and Disciplinary Sector (SSD)**  
MAT/05 Mathematical Analysis

**Description of the research programme and activities to be assigned to the collaborator**

The research project concerns certain free boundary problems of interest in fluid dynamics. Specifically, it relates to the study of the evolution of discontinuity fronts of solutions of magneto-hydrodynamic (MHD) equations, for non-viscous incompressible and compressible fluids, and of Euler equations for non-viscous compressible fluids. This study is part of the more general study of free boundary problems for non-linear hyperbolic equations, a research topic with important repercussions and that in recent years has demonstrated significant progress. The study will look at discontinuity fronts in the form of compressible vortex sheets, current-vortex sheets and plasma-vacuum interfaces, seeking to prove results of optimal regularity of the solutions.
and conditions of stability/instability. The study will also examine the possible application of the developed techniques to elasto-dynamic discontinuity problems.

**Research site**
Italy and, where necessary, other countries

**Contractual consideration inclusive of costs to be borne by the beneficiary**
€ 19,367.04

**Research Grant Manager**
Paolo SECCHI

**Requirements**
Master's Degree (or corresponding postgraduate degree or old system degree);
PhD or equivalent qualification obtained abroad;

**Preferred requirements**
**Preferred qualifications**
PhD or equivalent qualification obtained abroad in mathematics;

**Experience**
Prior experience in studying the partial differential equations of fluid dynamics;

**Proficiency in one or more foreign languages**
English

**Interview date and place**
The date, place and time of the interview will be notified via publication on the online University Notice Board.

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**Art.2**

**GENERAL ADMISSION REQUIREMENTS**

The competition for the assignment of the grants referred to in Article 1 of this call for applications is open to “scholars with suitable specialist scientific and professional qualifications to perform research”, pursuant to art. 22, paragraph 2 of Law 240/2010, with the exclusion of permanent staff at universities and institutions and the public research and experimentation bodies, ENEA and ASI.

In any case, the minimum requirement, under penalty of exclusion, is a Bachelor’s Degree (study programme of at least 4 years, according to the university legal system in force prior to Ministerial Decree no. 509 of 3 November, 1999), the specialist degree (Article 3, paragraph 1, letter b), Ministerial Decree November 3, 1999, n. 509), Master’s Degree (article 3, paragraph 1, letter b), Ministerial Decree no. 270 of 22 October 2004).

Applicants holding an academic qualification awarded abroad must attach to their application a copy
of their foreign degree certificate with an Italian translation or in English and the marks awarded for the individual exams, accompanied by a self-declaration that the translation is a true copy of the original.

The foreign degree can be declared admissible for the sole purposes of the selection.

Candidates who obtained their degree abroad and who are successfully awarded a grant must send the official translation with a Declaration of Value for the foreign degree issued by the competent Italian diplomatic or consular representative in the country of origin, in accordance with applicable laws in force.

For non-EU citizens, the grant becomes effective only after they have obtained a visa for scientific research, if the research is conducted in Italy.

In addition to the requirements indicated above, candidates must also fulfil the following:

1 – For Italian citizens:
   a) Eligibility to vote.

2 – For foreigners:
   b) The enjoyment of civil and political rights in the countries of citizenship or origin;
   c) possession, with the exception of Italian citizenship, of all of the other requirements provided for Italian citizens.

The compulsory requirements must be held by the deadline established in the call for applications in order to submit an admission application.

Candidates are admitted to the competition subject to confirmation and to the 6-year limit (including the grant that is the subject of this call for applications and for which the application is made), excluding the period in which the grant was used in conjunction with the PhD without a study grant, within the maximum legal duration of the relative course, as required by art. 22, par. 3 of Law no. 240/2010 and subsequent additions and amendments. The 6-year maximum limit must not include the years as research grant holder pursuant to the previous legislation (art.51, paragraph 6, Law no. 449 of 27 December 1997).

The Administration may, at any time, by means of a justified decision, order the exclusion from selections due to failure to meet the compulsory requirements.

In accordance with the regulations in force, disabled candidates must specify any need for additional time to complete tests, to be documented by means of a suitable certificate issued by the relevant local public healthcare facility, in accordance with Articles 4/20 of Law no. 104/1999.

This Administration guarantees equality and equal opportunity between men and women for employment opportunities and treatment at work.

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**Art. 3**

**APPLICATION AND DEADLINE**
Applications for admission to the selection procedure, as well as qualifications held, documents and publications deemed useful for the competition, must be submitted via computer, under penalty of exclusion, using the dedicated online application form at:

https://pica.cineca.it/unibs/dicatam2020-a001

The system will automatically refuse access and application submission after the deadline of 15 consecutive days from the day following the publication of this notice on the website.

The Administration does not accept any liability for lost communications deriving from the inaccurate indication of the candidate’s address, or by the lack of or late communication of the change of address indicated in the application, or that are in any case attributable to third parties, fortuitous event or force majeure.

In compliance with the administrative regulations, as per art.15 of Law 183 of 12.11.2011, only declarations in lieu of certifications and sworn statements should be attached to the application.

Art. 4
DOCUMENTS TO BE ATTACHED TO EACH APPLICATION
The following documents must be attached to each application:

a) CV, signed and dated, indicating the candidate’s scientific and professional activities;
b) photocopy of an identity document;
c) any publications, deemed to be useful for purposes of this selective procedure; these must also be accompanied by due declaration in lieu of a sworn statement, in accordance with art. 47 of Presidential Decree 445/2000, declaring them to be true copies of the originals;

Pursuant to Law 183/2011, the qualifications held must be self-certified or declared pursuant to articles 46 and 47 of Presidential Decree no. 445/2000

The Administration reserves the right to conduct suitable checks of the truthfulness of the contents of declarations in lieu.

Reference to documents or publications submitted to this or to other Administrations, or to documents annexed to a different application or another selective procedure, is not allowed.

Art. 5
EXAMINATION BOARD
An Examination Board will be set up to evaluate the candidates for each research project for which research grant posts are offered.

The Board, composed of three members including the project manager and two professors or researchers, plus any replacements, will be appointed by order of the Director of the Department after the deadline for the call for applications and will be published on the online University
Notice Board.

Possible objections by candidates to one or more members of the Examination Board, pursuant to art. 9 of the Leg. Decree 120/95, must be presented to the Director of the Department within thirty days of the publication of the appointment of the Board on the online University Notice Board.

At the end of each session, the Board will prepare a special report including the evaluation criteria, the judgements and the overall score given to each candidate.

Art. 6
EVALUATION CRITERIA
The competition is based on qualifications and interview: a maximum of 50 points are awarded for qualifications and 50 points for the interview.

The qualifications are evaluated before the interview.

Admission to interview will be granted to candidates who have obtained a score of 25 or more in the evaluation of their qualifications, established according to the following criteria:

- PhD or equivalent qualifications                                               max 10 points
- Professional skills and experience                                           max 10 points
- Scientific publications                                                      max 25 points
- Graduation mark                                                               max 5 points

Candidates will be notified of the results of the evaluation of qualifications via publication on the online University Notice Board.

The pass mark for the interview is 35 points.

Art. 7
INTERVIEW
The interview will focus on the specific research project for the research grant awarded through this competition.

During the interview, the Examination Board will judge the candidate’s ability to discuss the subjects proposed.

The place, the day and the time of the interviews will be held will be published on the online University Notice Board, with due notice.

Candidates must present a valid identification document to enter the room where the interview will be held.

Board sessions are open to the public during the interviews.

Candidates residing abroad can take the interview remotely, subject to presenting a specific request. The interview must be performed using telematic tools that allow real-time two-way audio/video communication, therefore the simultaneous connection between the candidate and the Board.
The remote interview is considered valid only where it allows:
- identification of the candidate at the time of the connection and for the entire duration of the session;
- the regular performance of the interview itself, which may be guaranteed by supervision by previously identified officials from universities, consulates, embassies of the candidate’s country of residence;

The provisions of this article also apply to candidates resident in Italy in the event of the objective impossibility of participating in person in the interview.

The University of Brescia bears, in any case, no liability in the event of technical problems of any nature that do not allow the interview to be initiated or performed correctly.

Art. 8
CREATION OF THE MERIT RANKING LIST

The grants are awarded, among those admitted to the competition, according to the order of the ranking list.

The candidate merit ranking lists are created according to the overall scores awarded to each candidate.

The overall score consists of the sum of the qualification evaluation score and the interview score.

Pursuant to the provisions of art. 2, paragraph 9 of Law no. 191 of 16/06/1998, if two or more candidates obtain equal scores upon the conclusion of the evaluation of qualifications and the interview, preference will be given to the youngest candidate.

The merit ranking list is approved with Chancellor’s Decree, is effective immediately and will be published on the Notice Board on the university website.

Art. 9
DURATION

The duration of the grant is linked to the duration of the project and is indicated for each grant in Art. 1 of this notice. It can be renewed for one or more years within the limits foreseen under Art. 22, paragraph 3 of Law 240/2010 and subsequent additions and amendments.

Art. 10
EMPLOYMENT RELATIONSHIP

The successful grant recipient of this selective procedure will establish an employment relationship of quasi-subordinate status under private law with the University of Brescia. This relationship does not fall within the institutional configuration of University Teaching Post or the role of University Researcher and, therefore, will not be effective for the purposes of recruitment as a member of Staff of Italian Universities and University Institutes.

Grant recipients will be asked, in accordance with the Regulations, to self-certify the following status,
facts and personal qualities:

1. that they have registered with INPS (National Social Security Institute) for the payment of contributions (registration with the separate section of INPS);

2. tax code;

3. bank account details for payment of the grant.

Foreign grant recipients are also required to have an Italian tax code.

The status, facts and personal qualities self-certified by the grant recipient of this selective procedure will be subject to appropriate controls by the University of Brescia, including by random testing, regarding their truthfulness.

Holding a research grant is incompatible with participation in Degree programmes, Specialised or Second Level Degree, or PhD with a scholarship or Medical Specialization, in Italy or abroad, and results in administrative leave without grants for employees of public administrations. Holding a research grant is incompatible with participation in Bachelor’s Degrees, Master’s Degrees, PhDs with study grants or Medical Specialization, in Italy or abroad, and results in administrative leave without pay for employees of public administrations.

Including the period provided for by the contract referred to in this notice, the candidate may not exceed a total of 12 years, even non-continuously, as research fellow and fixed-term researcher at the University of Brescia or other Italian state, non-state or online universities, or at the institutions referred to in Art. 22 of Law 240/2010.

The beneficiary must comply with the provisions of Art. 15 of the Regulations on Research Grants that can be found on the University of Brescia website (https://www.unibs.it/ateneo/statuto-e-regolamenti/regolamenti-la-ricerca/regolamento-assegni-di-ricerca).

Art. 11

EARLY TERMINATION OF THE CONTRACT

The procedure set forth in Art. 18 of the Regulations for Research Grants will be initiated seeking the termination of the contractual relationship for any grant recipient who, after initiating the research programme, fails to continue on a regular and continuous basis, without just cause, for the entire duration of the grant, or who is responsible for grave and repeated shortcomings.

Art. 12

PERSONAL DATA PROCESSING

The processing of personal data provided by candidates for the purposes referred to in this selection, shall be performed in compliance with EU Regulation no. 2016/679 - GDPR (General Data Protection Regulation).

The Data Controller is the University of Brescia, with registered address in Brescia, Piazza Mercato 15, certified email address: ammcentr@cert.unibs.it, switchboard no.: +39 030 29881.

The Data Protection Officer (DPO) contact details are: rpd@unibs.it, with address in Brescia, Piazza
In compliance with the regulations for public competitions and selections, the conferment and collection of personal data are necessary for the start-up, instruction, conclusion and execution of the selection procedures, under penalty of exclusion from the tests.

In the case of the processing of sensitive and/or judicial data or data, in any case, of high risk in terms of personal freedom, these data will be processed adopting adequate guarantees and manual and/or electronic security measures to ensure data protection and confidentiality.

Personal data will be processed by internal personnel specifically authorised for this purpose and by public and private third parties who have access to data under legislative, contractual or administrative provisions; in particular, the processing will also be performed by Cineca (Inter-university Consortium), as External Data Processor and by the Manager of Human Resources, as Internal Data Processor, on the basis of documented instructions received from the Data Processor.

The processing does not involve automated decision-making processes.

The personal data collected shall be retained for no longer than is necessary for the achievement of the objectives pursued or based on the deadlines set by specific provisions of the law.

The data subject is guaranteed the right to complain to the Supervisory Authority (www.garanteprivacy.it) as well as to exercise of the following rights and the following prerogatives (right of access, of correction, of deletion, of restriction, of opposition and of portability of personal data) with regard to the Data Controller or to the DPO. The data subject may also take appropriate legal action pursuant to art. 79 of the GDPR.

**Art. 13**

**PROCEDURE MANAGER**

Pursuant to the provisions of art. 5 of the Law of 7 August 1990, n.241 and subsequent amendments and additions, the person in charge of the procedure referred to in this announcement is Dr Francesca Meroli. Please contact francesca.meroli@unibs.it for any information.

**ART. 14**

**REFERENCE TO EXISTING LEGISLATION**

For anything not expressly covered by this notice, the provisions provided for by the legislation indicated in the introduction to this selective procedure, as well as, where applicable, the provisions of the Italian Civil Code, shall apply.

The admission notice is published on the online University Notice Board, on the M.I.U.R. website (Ministry of Education, Universities and Research) and European Union website, according to the regulations referred to under Law no. 240 of 30 December 2010.

**THE DIRECTOR**

Prof. Giovanni Plizzari
This call for applications is published on the online University Notice Board, on the MIUR website and the European Union website on 25 February 2020 and will expire on 11 March 2020.