



AMMINISTRAZIONE GENERALE  
AREA PERSONE E ORGANIZZAZIONE  
SETTORE DIDATTICA E CONTRATTI  
UFFICIO RICERCATORI A TEMPO DETERMINATO

REP. 1456 PROT. 41804 del 02/05/2016

## THE DIRECTOR

**WITH REFERENCE TO** the rules referred to in Article 14 of the present call for application

## ORDERS

### Art. 1 – Purpose

A procedure of comparative evaluation by qualifications and public discussion is called for the recruitment of 1 researcher with a fixed-term employment contract full-time for the three-year - pursuant to art. 24 paragraph 3 letter b) (senior) of Law no. 240/2010 -. Sector competition reference 09/C2 – THERMAL SCIENCE, ENERGY TECHNOLOGY, BUILDING PHYSICS AND NUCLEAR ENGINEERING, Scientific sector ING-IND/10 - Fisica e Tecnica Industriale.

The job is activated for the needs of research and study of the Department of Ingegneria industriale - DIN. Serving primarily at the Department of Ingegneria industriale - DIN, in Bologna.

The contract shall last three years. An annual gross total amount equal to € 41.878,00. The annual increase in this amount will be calculated according to the existing procedure for non-contracted personnel.

### Art. 2 – Activities to be performed

The contract includes 1500 hours of activity on an annual basis, including 350 hours of supplementary teaching and assistance to students, for each academic year covered by the contract. The contract shall schedule 60 hours of teaching on annual basis at the SCUOLA DI INGEGNERIA E ARCHITETTURA.

Concerning the provisions of art. 10 regarding fixed term researchers, issued by Rectoral Decree no. 344 of 29/03/2011 and amendments, the researcher's activities must be linked to the development of the project entitled: "Convection and thermal instability in fluid saturated porous media and in clear fluids".

The research activity is aimed to the following main topics: 1) Stability analysis of convective flows in porous media with a special focus on the effects of local thermal non-equilibrium and of the boundary conditions. A theoretical and numerical study is expected of the time evolution of disturbances, normal modes or wave-packets, superposed to basic flows either under forced or mixed convection regimes. 2) Onset of instability with a special focus on viscous dissipation and unsteady flow regimes. This activity consists in a theoretical and numerical investigation of effects such as viscous dissipation and the steady or unsteady regime on the instability of the basic flow. A special interest is devoted to the role played by these effects in triggering the thermal instability in a clear fluid.

Objective of the research project: publishing the research results on highly ranked international journals consistent with the scientific area of interest (ING-IND/10). Attending international conferences where disseminate the results obtained through the research activities.

### Art. 3 - Admission requirements



The selection is open to applicants who have had contracts as fixed-term researcher, for at least three years, pursuant to art. 24 paragraph 3 letter a) of Law 240/2010 (junior), or, for at least three years even if not consecutive, contracts as research fellow pursuant to art. 51 paragraph 6 of Law 449/97 and amendments, or pursuant to art. 22 of Law. 240/2010, or postdoctoral research scholarships pursuant to art. 4 of Law 398/89, or equivalent contracts or scholarships in foreign universities, or contracts as fixed-term researcher for at least three years pursuant to art. 1, paragraph 14 of Law 230/2005.

Applicants, including those who come from non-EU countries, must be in possession of:

- PhD in Energy Engineering or Mechanical Engineering or equivalent qualification obtained either from an Italian or foreign university.

Applicants must be in possession of said qualification at the date of the deadline for the submission of applications to the present selection.

Applications from professors, associate professors, or researchers with tenure will not be accepted, even if the applicant is not in service.

The selection is not open to any persons who are related by blood or by marriage up to the fourth degree, to a professor or full-time researcher working in the Department of Ingegneria industriale - DIN, or the structure proposing the activation of the contract, or to the Rector, Director General or a member of the Board of Governors of the University. Equally the selection is not open to the spouse or partner of a professor or full-time researcher working in the above-mentioned Department.

State employees may on unpaid leave for the entire duration of the contract, thus occupying a non-tenure position without pay or social security contributions, in cases where such a position is allowed by the structure of origin, likewise without pay or social security contributions.

#### **Art. 4 – Application procedure**

Applications for the selection shall be written on unstamped paper, using the form in annex A) and signed by the applicant.

Applications must be submitted as follows:

1. hand delivered to Alma Mater Studiorum - Università di Bologna – Area Persone e Organizzazione, Settore Didattica e Contratti, Ufficio Ricercatori a tempo determinato - Piazza Verdi n. 3, Bologna, on the following days and time:

- Monday, Tuesday, Wednesday and Friday: from 09:00 a.m. to 11:15 a.m.;
- Tuesday and Thursday: from 02:30 p.m. to 03:30 p.m.;

2. posted by registered letter with return receipt, or express delivery with return receipt to: Magnifico Rettore dell'Alma Mater Studiorum - Università di Bologna, Area Persone e Organizzazione, Settore Didattica e Contratti, Ufficio Ricercatori a tempo determinato, Piazza Verdi n. 3, 40126 Bologna.

Applications must be received by the Administration department within 30 days from the day after the day of publication of this call for application on the website of the Ministry of Education, University and Research (one day after the publication on the Gazzetta Ufficiale of the Italian Republic).

Accordingly, any application delivered or received after said date, although they are sent before the deadline, will be excluded. The date of the post mark will not guarantee acceptance, but the receipt date at the University will.

The receipt date is established and verified:

- in case of hand delivery: by the date reported in the receipt undersigned and issued by the person in charge of this administration;
- in case of posting: by the date of receipt written on the return receipt by the person in charge of reception.

The Administration shall not assume any responsibility for delivery failure of communications unless otherwise caused by its employees.



Annex A contains the declarations to be made.

All applications must be accompanied by a curriculum vitae, qualifications and publications (max 15).

Pursuant to Ministerial Decree 243/11, the PhD thesis is considered a publication, and thus if presented by the candidate it shall be included in the maximum number indicated (max. 15).

If the applicant encloses more than the maximum permitted number of publications, only the first 15 publications in the list will be assessed by the Examination Board.

#### **Art. 5 – Applicants' obligations**

The penalty of exclusion from the selection shall apply in the following cases:

- Lack of applicant's wet signature at the bottom of the form;
- Non compliance with the terms established for posting the application form;
- Lack of the requirement pursuant to art. 3 of the present call for application (qualification).

All applicants shall be admitted to the contest and the Administration reserves the right to check that they actually are in possession of the requirements necessary to apply for the selection; the Administration may, at any time and even after the exams, order the exclusion from the selection hereto.

#### **Art. 6 – Selection Board**

The Selection Board will be appointed upon administration resolution and will generally consist of at least three members chosen by the Department of Ingegneria industriale - DIN from lecturers and researchers in the scientific sector for which this selection is made Sector competition reference 09/C2 – THERMAL SCIENCE, ENERGY TECHNOLOGY, BUILDING PHYSICS AND NUCLEAR ENGINEERING.

The Commission finds inside a chairperson and recording secretary. The function of secretary may also be performed by an official, specially appointed.

The appointment will be published on Alma Mater Studiorum - University of Bologna website.

#### **Art. 7 – Selection procedure**

The selection procedure is carried out by the Board after a preliminary evaluation of each candidate's qualifications, curriculum and scientific production, including the doctoral thesis, according to the criterion identified by the MUIR in D.M. 243/2011.

The candidates chosen in the preliminary evaluation based on their comparative merits - between 10 and 20% of the number of applicants and not less than 6 - will then be called for interview. The interview will consist of a discussion of the candidate's qualifications and scientific production and may take the form of a seminar open to the public. If the total number of candidates is 6 or less all candidates will be interviewed.

Letters of reference will be considered.

The interview will be held in Italian. During the interview, candidates must also demonstrate suitable knowledge of the English language.

Following the interview, points will be assigned to each qualification and publication presented by the candidate.

The interview with the Board will be held in public session from the 16.th June 2016 from 11:00, At the Dipartimento di Ingegneria Industriale -- Alma Mater Studiorum - University of Bologna - Sala Riunioni di Fisica Tecnica, 1.st floor, Viale Risorgimento 2, Bologna.

The indications of the date, time, venue of the discussion and the list of candidates admitted for interview will be published from the 09.th June 2016, at 14:00 on the University website page at:

<http://www.unibo.it/Portale/Personale/Concorsi/RicercatoriTempoDeterminato/default.htm>.

The publication on the University website will constitute official notification to all applicants, without any obligation for any further communication.



The publication will be communicated by email to the address indicated by the candidates in the application.

The Alma Mater Studiorum - University of Bologna does not assume any responsibility for the non-receipt or the not-read of the e-mail.

It is up to candidates to keep themselves informed by consulting the University website page to find necessary informations about selection.

Candidates attending the interview must bring a valid identification document with them.

EU citizens shall bring their passport or an identity document issued by their country of origin. Non-EU citizens shall bring their passport.

### **Art. 8 – Ranking List and recruitment**

After the exams, the Board shall prepare the general final list based on the merits.

On equal merits, priority will be allocated according to date of birth and the youngest one shall prevail.

The list based on merits is approved pursuant to the administration resolution and will last three years. It will be published in Alma Mater Studiorum – University of Bologna Official Bulletin.

The terms to raise any appeal shall start from the date of publication of said notice, in case the resolution has not been otherwise disclosed.

The use of the final candidate list is strictly bound to study and research related to the scientific sector SSD ING-IND/10 - Fisica e Tecnica Industriale-.

The Department of Ingegneria industriale - DIN will propose recruitment by a majority vote of the professors and associate professors of the Department and approved by the Board of Governors.

The Department will also propose the date of commencement of employment contract.

### **Art. 9 – Employment procedures**

Following the conclusion of the recruitment procedure referred to in art. 8, the candidates will be asked to sign a fixed-term contract of full-time employment.

The employment relationship is governed by a personal contract, statutory laws and EC regulations.

The personal contract shall specify any reasons for which it might be terminated, as well as the relevant periods of notice. In any case the contract will be terminated immediately and without notice in the event of the cancellation of the recruitment procedure to which it is inalienably linked.

The trial period shall last three months. At the end of the period, unless the employment relationship has been terminated by either of the parties, the employee is confirmed for service and the whole period worked from the beginning of the contract shall be calculated for seniority purposes.

### **Art. 10 – Required documents**

All the documents written in any foreign language shall be accompanied by a true and correct translation into Italian, written by an Italian consular, a qualified diplomatic representative, or an official translator.

### **Art. 11 Rights and duties of a researcher with a fixed-term contract of employment**

In accordance with the rights and duties of public employees prescribed by the Italian civil code, on signing the contract the researcher will be expected to perform all those activities mentioned in Art. 2. These activities will be carried out in respect of the existing hierarchy and in coordination with existing programmes and research projects.

The researcher will perform the requested activities in person, substitution is not permitted.

Existing Italian laws concerning maternity, injury and illness will be applied.

The researcher undertakes to fulfill the obligations of conduct prescribed by the code of conduct, issued by DPR 62/2013.



### **Art. 12 Processing of personal data and person in charge for the contest**

Personal data sent by applicants through their application form for the purposes of the contest, under Leg. Decree no. 196/2003, will be treated for the purposes of the contest and any hiring procedure.

The person in charge of the contest is Mr. Gianfranco Raffaelli, Responsabile dell'Ufficio Ricercatori a tempo determinato - Piazza Verdi n. 3 - 40126 Bologna.

For further information, please contact: Ufficio Ricercatori a tempo determinato dell'Alma Mater Studiorum - Università di Bologna – Piazza Verdi n. 3 - Tel. +39 051 2099617 – 2098958 - 2098972, Fax 051 2086163; e-mail: apos.ricercatoritempodeterminato@unibo.it.

### **Art.13 - Return of documents**

1. Candidates may require, with specific application to be submitted after the issuance of the decree of confirmation of the regularity of the proceedings, within four months from the date of the decree, the return of the documents submitted. After the deadlines set by law and unless contentious the University will proceed with the return of the documents.

2. After telephone / email arrangement, the Candidate must appear in person in Apos - Researchers temporary office - Piazza Verdi 3 - Bologna, to withdraw the above documents; he also may delegate to the collection, at its expense, a courier or other person. No provision due.

3. After the deadline in paragraph 1 the University will dispose of the material according to their own decisions, without liability, except in cases where the return of the documents is suspended for litigation.

### **Art. 14 – Reference Regulations**

The present notice is issued based on the following regulations:

- Art. 24 of Law no. 240 dated December 30th, 2010;
- D.P.R. (Decree of the President of the Republic) no. 445 dated December 28th, 2000;
- Leg. Decree no. 165 dated March 30th, 2001;
- Law 241/1990;
- Regulation for fixed-term researchers of Alma Mater Studiorum – University of Bologna,

(link:

[http://www.normateneo.unibo.it/NormAteneo/Regolamento\\_ricercatori\\_a\\_tempo\\_determinato.htm](http://www.normateneo.unibo.it/NormAteneo/Regolamento_ricercatori_a_tempo_determinato.htm)).

Bologna, 02/05/2016

Il Dirigente dell'Area  
f.to Michele Menna

While applying, applicants shall declare under their own responsibility:

1. surname and name;
2. place and date of birth;
3. citizenship;
4. (if Italian citizens) registration to electoral rolls, specifying in which Municipality and indentifying, if any, the reasons why he/she is not registered or cancelled from them;



5. that there have not been any criminal proceeding against them or current criminal proceedings; otherwise, applicants shall specify the proceedings against them and the judgment date of the regulatory bodies which gave rise to them (in addition, specify if, remission, pardon or expungement etc. were granted) and pending penal proceedings;

6. possession of the qualification required pursuant to Art. 3 of this call for application and the mark obtained;

7. to be fit to the employment the selection refers to;

8 that they are not, nor have been, professors, associate professors or researchers with tenure, even if not in service;

9 That they are not related by blood or by marriage up to the fourth degree, to any professor or full-time researcher working in the Department of Ingegneria industriale - DIN or the structure proposing the activation of the contract, or to the Rector, Director General or a member of the Board of Governors of the University of Bologna, nor they are the spouse or partner of a professor or full-time researcher working in the same Department.

10. elected domicile for the purpose of the participation in this contest, as well as a telephone number and an e-mail address;

11. applicants shall enclose their curriculum vitae containing date and signature, as well as a photocopy of a personal means of identification.

Foreign citizens shall also declare to have a proper knowledge of Italian and to enjoy civil and political rights also in their origin countries or the reasons for loss of enjoyment.

The signature shall be put at the bottom of the form. Said signature does not require any authentication pursuant to Art.38 of DPR 445 dated 2000.

Any modification shall be timely communicated to the Ufficio Ricercatori a tempo determinato.

The following documents shall be enclosed to the application form:

1. photocopy of a means of identification;

2. curriculum of the scientific-professional activity with date and signature;

3. any qualification considered useful for the purposes of the selection with relevant dated and signed list;

4. reference letters, if any;

5. scientific publications (max 15) which are already printed at the date of the call of application deadline or scientific publications accepted for printed, with relevant numbered, dated and signed list as well as the authors' names, titles, date and place of publication, number of collection or volume and reference year.

The qualifications applicants intend to submit shall be either original or, for EU citizens, an authenticated copy, or shall be certified by the applicant, pursuant to Art. 46 and Art. 47 of D.P.R. no. 445 dated 28.12.2000, by way of self-executed certifications (Annex B) or self-executed affidavit (Annex B).