



## UNIVERSITÀ DI PISA

Excerpt from the Rector's decree n. 1037 /2022 21/06/2022

### **Call for the selection of n. 10 Junior Research Fellows**

(Under the Italian Law 240/2010 article 24, subparagraph 3, point a)

The University of Pisa announces a call for 10 Junior Fixed-Term Research Fellow for the Department and the scientific area or sector as listed in Annex A.

The fixed-term contract is to carry out research activities, teaching, integrative teaching activities and services for students, for a 350 hours commitment, on a full-time basis.

The Junior Research Fellow is required to perform lectures for a minimum of 36 up to a maximum of 60 hours per academic year, allocated as an institutional assignment for Bachelor's and Master's degree programmes, Specialization Schools and PhD programmes. It is possible to provide a further derogation up to a maximum of 72 hours, in order to avoid an excessive partitioning of teaching modules.

Contract duration: 3 years

Deadline for application: 01/08/2022 1 p.m.

#### **Admission requirements:**

PhD or equivalent academic qualification awarded in Italy or abroad and recognised as eligible for admission.

medical specialization, for the sectors concerned

As for a qualification awarded abroad, equivalency or comparability documentation has to be provided as stated under:

D.Lgs.165/2001, article 38:

[http://www.funzionepubblica.gov.it/sites/funzionepubblica.gov.it/files/modulo\\_equivalenza\\_Titoli\\_Accademici.pdf](http://www.funzionepubblica.gov.it/sites/funzionepubblica.gov.it/files/modulo_equivalenza_Titoli_Accademici.pdf)

Or under:

D.P.R. 382/1980, article 74:

[http://www.miur.gov.it/documents/20182/0/Equipollenza\\_Dottorato\\_ricerca\\_dpr382.pdf/f5ff98ae-ddff-4166-a822-83ef1b57c7f0](http://www.miur.gov.it/documents/20182/0/Equipollenza_Dottorato_ricerca_dpr382.pdf/f5ff98ae-ddff-4166-a822-83ef1b57c7f0)

As for an equivalent or comparable academic qualification, the candidate shall be admitted within the application's deadline and shall provide the qualification equivalency or comparability before the signing of the contract.

No admission to this selection for:

- Professors or Research Fellows with permanent position at the university, currently employed or currently retired;
- Fixed-term Research Fellowship or Post PhD research grants at the University of Pisa or other Italian universities, either public, private or online, and other public institutions (Under the Italian Law Italian Law n. 240/2010, articles 22 and 24) for a period that, totalled over this contract, would exceed 12 years altogether, even when not consecutive. As for the duration of the working period mentioned above, parental leave or medical leave, are excluded (under the existing legislation).

#### **Applications:**

Applications are to be submitted online only, using the following link: <https://pica.cineca.it/unipi/> or shall be invalid. It is necessary to have an email address to login and complete the application.

Applicants should fill in all the required data and upload all documents in PDF format.

The system allows saving a draft of the application within the application deadline. The system will register the online application date and send a receipt with an automatic e-mail reply. After deadline, the system will not allow login nor application submission.

In order to be valid, application shall include all the required data, applicant's signature and a valid identification document.

Each application will be assigned a tracking number to be cited in all subsequent communications, together with the selection code provided by the application form.

Applicants undertake to communicate in writing any variations of what declared in the application form.

The communication shall be edited in PDF format, signed and forwarded to the University of Pisa Rector via the Italian certified e-mail system address (P.E.C. Posta Elettronica Certificata): [protocollo@pec.unipi.it](mailto:protocollo@pec.unipi.it) or via e-mail at: [concorsi@adm.unipi.it](mailto:concorsi@adm.unipi.it). Applicant's valid identification document shall be annexed.

For further information on application submission, please refer to [concorsi@adm.unipi.it](mailto:concorsi@adm.unipi.it)

For any IT malfunctioning please refer to [unipi@cineca.it](mailto:unipi@cineca.it).

Applications shall be completed with the following annexes:

1. A self-attested Curriculum of the personal didactics, teaching and scientific activities, dated and signed;
2. The Publications applicant considers eligible for this selection with the corresponding list dated and signed;
3. A complete list of all Publications, dated and signed;
4. A copy of the fiscal code (if applicable) and identification card/passport, dated and signed;

All publications should not exceed 30 megabyte and are to be submitted in PDF format only, using the specific section of the application form.

Selection procedure:

A Rector's Decree will appoint the Selection Committee, consisting of three members.

The selection will be made according to a preliminary assessment of the candidates with an accurate and evidenced analytic evaluation of the Curriculum, of qualifications and scientific results, including PhD thesis. After the preliminary assessment, the candidates that have comparatively proven to be the most meritorious, will be admitted to an open interview; they will represent between 10 and 20 % of the total and will be not less than six. The interview will concern applicant's qualifications and scientific results. In the event the number of applicants is six or less, all candidates are admitted. All admitted candidates will be summoned by registered post at least twenty days before the interview; the failed attendance to the interview will be considered as a voluntary renunciation.

During the interview, all candidates will be furthermore tested on the foreign language skills requested by the selection.

In compliance with the provisions adopted following the COVID-19 epidemiological emergency, interviews will take place on virtual mode to ensure the simultaneous connection between the members of the Commission and the candidates, under the regulations on the protection of personal data for confidentiality conservation.

During the interview it will be forbidden the audio / video recording through the IT platforms used as well as the broadcasting of the audio / video recording made with tools other than the platform.

The interview disclosure will be guaranteed inviting all candidates and any third part who has requested, with a link to the event; the link will be published at <https://www.unipi.it/index.php/concorsi-gare-e-bandi> in the section "Prove e colloqui in modalità telematica - Aule virtuali" and will allow the connection to the telematic session.

"The list of candidates admitted to the interview will be published on the university website at <https://www.unipi.it/index.php/concorsi-gare-e-bandi> in the section dedicated to the procedure in this call "

Please note that the English version is given as a matter of courtesy, for the only purpose of information. It cannot be legally used in the event of a dispute or a claim arising from the interpretation of this translation and concerning the contents, a possible uncertainty, contradiction or discrepancy. Should this occur, the Italian version of the call shall prevail as the only valid. For full Italian text see: <https://www.unipi.it/ateneo/bandi/ricercat/ricercator/index.htm>

(1) If applicable

## Annex (A)

### Codice selezione A1

Department of Chemistry and Industrial Chemistry

**Admission Examination: 03/C1 Organic chemistry**

**Disciplinary Scientific Sector: CHIM/06 Organic chemistry**

Nr. of position available: 1

#### **Focus of research:**

Study of carbon-containing compounds, both of natural and synthetic origin. Development of efficient and environmentally friendly synthesis methodologies, also based on (stereo)selective and catalytic approaches; elucidation of the mechanisms by which organic compounds are formed and transformed both in the laboratory and in natural and environmental systems, structural characterization, and structure-reactivity relationships. Design of the synthesis of biologically active compounds and new organic materials.

#### **Scientific productivity:**

Achieve scientific autonomy, also through the supervision of BSc, MSc and PhD theses. International scientific publications and access to competitive research calls. Dissemination of research results through communications at national and international congresses, and in activities aimed at the public and on the web.

#### **Head office:**

Department of Chemistry and Industrial Chemistry

#### **Specific didactic activity of the contract**

Laboratory and theoretical courses of Organic Chemistry in BSc and MSc programs of the University of Pisa, compatibly with the minimum and maximum commitments defined by law and by the University Regulations for the role of RTD-A

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 12 scientific publications

## Codice selezione A2

Department of Civilisations and Forms of Knowledge

10/A1 - ARCHAEOLOGY

L-ANT/08 - CHRISTIAN AND MEDIEVAL ARCHAEOLOGY

Nr. of position available: 1

### **Focus of research**

Studies on archaeological excavations, on architectural heritage, figurative arts and material culture relating to Europe and the Mediterranean world in the Late Antiquity, Christian and Medieval Ages, with reference to the historical, cultural and artistic evaluation of the results, as well as to the didactic aspects of the museum and the archaeological park applied to environments and finds of the Late Antiquity, Christian and Medieval periods. Studies of Christian and medieval epigraphs, as well as medieval settlements and topography.

### **Scientific productivity:**

Papers in Journals of class A; 1 monograph (in inglese)

### **Head office:**

Department of Civilisations and Forms of Knowledge

### **Specific didactic activity of the contract**

Didactic activity in the degree courses in SBC and in the master's degree in Archaeology

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 12 scientific publications

### **Codice selezione A3**

Department of Philology, Literature and Linguistics  
10/F3 - ITALIAN LINGUISTICS AND PHILOLOGY  
L-FIL-LET-12 - ITALIAN LINGUISTICS  
Nr. of position available: 1

#### **Focus of research**

Research will focus on the topics indicated in the declaration of the scientific-disciplinary sector L-FIL-LET/12, i.e. studies on the Italian language and on the dialects spoken in Italy from origins up to nowadays, with regard to phonetic, morphological, syntactic and lexical structures, the evolution of these systems, the history of social and geolinguistic uses, the textual and stylistic traditions, the theoretical and applicative problems, as well as teaching methodologies of the Italian language for Italians and foreigners and the linguistic and computer analysis of texts and corpora

#### **Scientific productivity:**

Peer-reviewed journal publications; contributions in scientific volumes and conference proceedings (in inglese)

#### **Head office**

Department of Philology, Literature and Linguistics

#### **Specific didactic activity of the contract**

Courses of the SDS L-FIL-LET/12 in bachelor's and master's degree programmes, and collaboration in the PhD programmes of the Department

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 12 scientific publications

Codice selezione A4

Department of Physics

Admission Examination: 02/B2 Theoretical physics of matter

Nr. of position available: 1

**Focus of research**

Research activities in the fields of the academic discipline 02/B2

**Scientific productivity:**

Contributions beyond the state of art of the research in the field. Gaining of scientific independence, possibly including the supervision of BSc, and MSc theses. Research papers in peer-reviewed, international journals. Dissemination of the results of the performed research in national and international conferences.

**Head office**

Department of Physics

**Specific didactic activity of the contract**

Courses on basic physics and specialist courses in physics of matter

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 12 scientific publications

In the application, candidates should attach a summary of their previous research)

Codice selezione A5

Department of Computer Science

01/A6 - OPERATIONS RESEARCH  
MAT/09 - OPERATIONS RESEARCH  
Nr. of position available: 1

**Focus of research**

Research activities in the fields of the academic discipline MAT/09 Operational Research

**Scientific productivity:**

Contributions to the progress of the state of art in Operational Research by means of international level publications

**Head office**

Department of Computer Science

**Specific didactic activity of the contract**

The duties of the role include delivering teaching to all levels of students (undergraduate and graduate) of the academic discipline MAT/09 - Operational Research

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 12 scientific publications

## Codice selezione A6

Department of Civil and Industrial Engineering

### **09/D3 - CHEMICAL PLANTS AND TECHNOLOGIES**

#### **ING-IND/25 - CHEMICAL PLANTS**

Nr. of position available: 1

#### **Focus of research**

Development of methodologies for the analysis and modeling of industrial chemical systems, equipment, processes and plants; analysis of the safety and environmental compatibility aspects of industrial plants and processes based on chemical-physical transformation of the materials with emphasis on methodologies for the development sustainable processes and technologies. The reference sectors, in addition to the classic ones of chemical engineering, are represented by the paper and cardboard production industry and end of life recycling of materials and goods.

#### **Scientific productivity:**

Scientific activity involves the participation to international research projects and contracts founded by public or private bodies, the preparation of scientific articles for publication in international journals and presentation at international conferences.

#### **Head office:**

Department of Civil and Industrial Engineering

#### **Specific didactic activity of the contract**

The teaching commitment will consist in teaching courses of the SSD ING-IND / 25 and related sectors in the Master's Degree Course in Technology of production of paper and cardboard and master's degree courses of the School of Engineering of Pisa and in other Departments of the 'University of Pisa; it may also include teaching in doctoral, master and post-graduate specialization courses

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 12 scientific publications



## Codice selezione A7

Department of Energy, Systems, Territory, and Construction Engineering

**08/E2 - CONSERVATION, RESTORATION AND HISTORY OF ARCHITECTURE**

**ICAR/19 - CONSERVATION AND RESTORATION OF ARCHITECTURE**

Nr. of position available: 1

### **Focus of research**

The research activity will be focused on the topics of Restoration and specifically: the theoretical foundations of the protection of the cultural values of the built environment, seen also in their temporal evolution; the research for the critical analysis of the works in their figural, material, and constructive consistency and in their chronological complexity, as well as for the diagnosis of the phenomena of degradation, in order to program actions for their protection; methods and processes for the conservative intervention at the scale of building, monument, archaeological remain, historical park or garden, historical centre, territory and landscape heritage, and for the maintenance, rehabilitation, technological redevelopment, consolidation, renovation of historical buildings.

### **Scientific productivity**

The research activity, focused on the topics included in the descriptive declaration of the scientific disciplinary sector ICAR/19, will be aimed at publication on national and international scientific journals and books, participation in national and international conferences, research cooperation with national and international institutions.

### **Head office**

Department of Energy, Systems, Territory, and Construction Engineering

### **Specific didactic activity of the contract**

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The teaching activity will be performed within the courses related to the Scientific-disciplinary sector ICAR/19, with reference to the topics included in its descriptive declaration, based on the departmental planning of teaching activities, according to the provisions of the University Regulations on the legal status of teaching.

Candidates will be required to demonstrate an adequate knowledge of **English** language

Candidates may present a maximum number of 12 scientific publications

## Codice selezione A8

Department of Information Engineering

**09/G1 - SYSTEMS AND CONTROL ENGINEERING**  
**ING-INF/04 - SYSTEMS AND CONTROL ENGINEERING**

Nr. of position available: 1

### **Focus of research**

Research activity in the topics relevant to area 09/G1, discipline ING-INF/04 “Automatica”

### **Scientific productivity:**

Advances in the state of the art in the topics within area 09/G1, discipline ING-INF/04 “Automatica”, documented by high quality publications in peer reviewed journals; capability of acquiring funds for scientific and technological research and development at the local, national, and international level.

### **Head office**

Department of Information Engineering

### **Specific didactic activity of the contract**

Basic and advanced courses within area 09/G1, ssd ING-INF/04 “Automatica”

Candidates will be required to demonstrate an adequate knowledge of **English** language  
Candidates may present a maximum number of 12 scientific publications

## Codice selezione A9

**Department of Mathematics**  
**01/A5 - NUMERICAL ANALYSIS**  
**MAT/08 - NUMERICAL ANALYSIS**  
Nr. of position available: 1

### **Focus of research**

Study of the numerical analysis and of the computational techniques, also using computers and parallel calculus. More generally, study of all the computational aspects of mathematics.

### **Scientific productivity**

Publishing papers of interest in the realm of numerical analysis in generalist or specialized journals at a national or international level. Seminars in Universities, Research Institutes and international or national Conferences.

### **Head office:**

**Department of Mathematics**

### **Specific didactic activity of the contract**

Teaching of courses having as a topic the basics of mathematics, in any degree program of the university, and of advanced courses of numerical analysis topic in the first degree, master and PhD programs in mathematics.

Candidates will be required to demonstrate an adequate knowledge of **English** language  
Candidates may present a maximum number of 12 scientific publications

## Codice selezione A10

Department of Geosciences

**04/A3 - ENGINEERING GEOLOGY, PHYSICAL GEOGRAPHY AND GEOMORPHOLOGY**

**GEO/04 - PHYSICAL GEOGRAPHY AND GEOMORPHOLOGY**

Nr. of position available: 1

### **Focus of research**

The candidate will be asked to focus his/her research activity on the general subject included in the declaration of the scientific disciplinary field GEO/04 "Physical Geography and Geomorphology" mainly aimed at the study of the "environmental system" through the analysis of the physical elements and processes related to the exogenous dynamics of the geosphere, the experimental and theoretical study of landforms, climate, hydrosphere and cryosphere on the basis of methods and techniques of analysis, such as photointerpretation, remote sensing and geomorphological surveys.

### **Scientific productivity**

*Publication of scientific papers in high-rank international scientific journals. Participation to national and international meetings. Outreach activities.*

### **Head office**

Department of Geosciences

### **Specific didactic activity of the contract**

*SSD teachings in the Bachelor's and Master's degree courses of the University of Pisa; the activity will also include environmental and geoscience education.*

Candidates will be required to demonstrate an adequate knowledge of English language

Candidates may present a maximum number of 12 scientific publications