

PUBLIC NOTICE

National and international applications for 1 (one) **Assistant Professor position in the area of Computational Mathematics and Numerical Analysis** are open by Faculdade de Ciências da Universidade de Lisboa (FCUL), for a period of 30 (thirty) working days starting from the working day immediately following the publication of this notice in *Diário da República*. The selected candidate will be hired through a public administration contract, under the terms of the University Teaching Career Statute, republished by Decree-Law no. 205/2009, of August 31st, subsequently amended by Law 8/2010, of May 13th, hereinafter referred to as ECDU, and other applicable rules, namely, the Regulations for the Recruitment of Assistant, Associate and Full Professors of University of Lisbon, published by Rule 2307/2015, in *Diário da República*, 2nd Series, No. 45, of March 5th, hereinafter referred to as RegULisboa, and the Regulations for the Recruitment of Assistant, Associate and Full Professors of Faculty of Sciences of University of Lisbon, published by Rule 7999/2017, in *Diário da República*, 2nd Series, No. 177, of September 13th, hereinafter referred to as RegFCUL.

The selected candidate will be hired through a public administration contract for an indefinite period, in the category for which this competition is opened, with an experimental period of five years. The present call is aimed at PhD holders with high research potential and ability who wish to enter a university teaching career, complying as well with the provisions of Article 6, paragraph 5, of Decree-Law no. 57/2016, of August 29, as amended by Law no. 57/2017, of July 19.

According to the March 31st joint Decree No. 373/2000 from the State Reform and Public Administration Minister and the Equality Minister it is mandatory that:

In compliance with paragraph h) of the Constitution Article 9, the Public Administration, as an employer, actively promotes an equal opportunity between men and women policy in what concerns access to work and professional progression, taking particular care to prevent all forms of discrimination.

This means that no candidate may be given special privileges, be benefitted or suffer prejudice, in any way, or be deprived of any right, by reason of parentage, age, sex, sexual orientation, marital or family status, financial circumstances, educational attainment level, origin or social class, genetic inheritance, reduced ability to work, handicap, chronic illness, nationality, ethnic or racial origin, land of origin, language, religion, political or ideological convictions or union membership.

In accordance with ECDU Articles 37 to 51 and other applicable legislation, and as required by the RegULisboa article 8, the following requirements shall apply:

I – Authorization Order

This notice was authorized by Professor Luís Manuel dos Anjos Ferreira, Rector of the University of Lisbon, on 18th July 2024, after confirmation of adequate budget provision existence and that the position is planned and not occupied in the FCUL teaching staff list.

II – Workplace

Faculty of Sciences, University of Lisbon, Campo Grande, 1749-016 Lisbon.

The Assistant Professor to be hired will integrate the Department of Mathematics and will carry out teaching activity. The research activity will be hosted by the R&D Unit associated with the department, namely Centro de Matemática Aplicações Fundamentais e Investigação Operacional (CMAFcIO).

Applicants should refer to public information available on this Unit current R&D strategy and scientific domains.

III - Admission requirements

Eligible candidates:

1) Holders of a PhD degree, in compliance with Article 41-A of the ECDU.

1.1) Holders of a PhD degree obtained abroad must have equivalence or recognition or degree registration proving that it is equivalent to the one awarded by Portuguese universities;

1.2) Candidates who do not yet hold the equivalence or recognition, or degree registration, should apply for recognition of the doctoral degree, in accordance with Law no. 66/2018, of August 16, as currently worded, and this recognition must be obtained by the deadline that will be granted to the candidate selected to occupy the position, to hand the documentation proving that he/she meets the requirements for admission to this call, and is consequently eligible to sign an employment contract in public functions.

2) Proficiency in Portuguese language, both written and spoken.

Candidates of foreign nationality, except those from Portuguese-speaking countries, must, when applying, submit a formal statement that they will demonstrate, within one year of signing a contract, a proficiency in Portuguese (written and spoken) that will allow them to teach Portuguese students without any communication limitations.

3) Failure to submit any of the required documents for this application, within the deadline and under the terms indicated in Chapters IX and X of this public notice, determines the non-admittance of the application, which shall be object of analysis and decision by the Director of FCUL, prior to the Jury's deliberation on absolute merit.

IV - Admission criteria based on absolute merit

Once the applications have been duly completed, the admission of the candidates in absolute merit will depend on:

1) An overall CV that the jury deems revealing scientific merit, research capacity and previously developed teaching activity compatible with the Computational Mathematics and Numerical Analysis disciplinary area, and compatible with an Assistant Professor position; and

2) to have at least 10 entries listed in MathSciNet or zbMATH; and

3) have five Q1 articles in SCIMAGO;

The curricular assessment referred to in the preceding paragraphs is restricted to the period since 1st January of 2016.

A candidate is approved in absolute merit if approved by an absolute majority of the voting members of the jury, in a justified nominal vote, where abstentions are not allowed.

V - Parameters of evaluation and ranking of relative merit, their weights and final valuation system

The candidates approved in absolute merit will be ranked according to the selection criteria described below, under the terms of No. 6 of Article 50 of the ECDU, of No. 4 of Article 5 and Article 11 of the RegULisboa, and of Articles 8 and 9 of RegFCUL. The ranking of candidates in relative merit will be based on a weighted sum of points in a scale 0-100 (being 0 the minimum and 100 the maximum), according to the evaluation parameters discriminated below.

The evaluation parameters consist of the Pedagogical component, the Research component, the Other Activities component, all developed by the candidate since 1st January of 2016, and the merit of the scientific project. These evaluation components should be compatible with the area of the tender as advertised in the call, and appropriate for an Assistant Professor position. Their corresponding weights are:

- A) Pedagogical component – **10%**;
- B) Research component – **75%**;
- C) Other activities component – **5%**;
- D) Merit of the scientific project – **10%**.

The evaluation of each parameter will consider the following aspects:

A) Pedagogical component (10%)

- 1) Teaching: teaching and/or coordination of curricular units related to the disciplinary area of the call: diversity, pedagogical practices and, if available, results of student's surveys on those teaching units.
- 2) Pedagogical materials: quality and diversity of the candidate's pedagogical publications, computer applications, experimental prototypes, texts and teaching materials.
- 3) Pedagogical innovation: promotion of new pedagogical initiatives: solid and coherent proposals for the creation and/or reformulation of curricular units, implementation or reinforcement of laboratory infrastructures or facilities (experimental and/or computational), conception/implementation or restructuring of groups of curricular units or study plans.
- 4) Academic supervision: supervision experience of doctoral, master and undergraduate students: number, quality, scope and scientific/technological impact of publications, theses, dissertations and final reports. Awards and international recognition must be highlighted. Orientation, co-orientation and other mentoring activities should be clearly described.
- 5) Other: relevant work and/or professional experience, outside the academic environment, in the area of the call.

B) Research component (75%)

- 1) Publications: books and/or book chapters, articles in scientific journals and in conference proceedings (as author or co-author), characterized in terms of type of publication, impact factor and number of citations. The quality of the selected publications should be considered.

- 2) Projects: coordination and participation in scientific projects, obtained in competitive calls, in national and international programs. The capacity to attract competitive funding. The challenges addressed and the results obtained (scientific and/or technological and/or innovation) should be considered.
- 3) Innovation: authorship and co-authorship of patents, technologies, models and industrial designs. The nature, territorial scope, level of technology and obtained results, as well as entrepreneurial initiatives with significant participation should be considered.
- 4) Autonomy and leadership: participation and coordination of initiatives to create or reinforce experimental and/or computational laboratory infrastructures to support research. Coordination and leadership of research teams.
- 5) Recognition: awards granted by scientific societies or obtained at scientific meetings, editorial and reviewing activities in scientific journals; peer reviewing of programs, projects, grants, and prizes; coordination or participation in scientific or organizing committees of scientific events; invited lectures in scientific meetings or seminars presented at other universities; membership of scientific societies of competitive admission and other distinctions.

C) Other activities component (5%)

- 1) Outreaching: articles in national and international journals and conferences, and other scientific and technological publications with professional and societal impact.
- 2) R&D Services: activities involving the economic system and/or business environment and/or the public sector (type of participation, size, diversity, technological intensity, innovation). Participation and coordination of scientific and technological outreaching initiatives for the scientific community (organization of meetings, conferences, ...), within the pre-university education system (students and teachers), the media, the general public, associations and outreaching entities, highlighting their nature, scientific and technological intensity, and results.
- 3) Institutional positions: individual positions in university management bodies (rectorships, school management, ...) or as qualified representative in management bodies of the scientific and technological system.
- 4) Scientific and/or academic positions: participation in collective bodies (Scientific or Pedagogical Councils, ...). Individual management positions in departments, research units, course coordination, disciplinary areas, sections. Positions and temporary tasks of scientific and/or pedagogical nature that have been assigned by the competent management bodies. Participation in collective panels that evaluate applications to scientific programs, academic examination boards, among others.
- 5) Other positions: positions in scientific or professional organizations of national or international scope.

D) Scientific Project (10%)

In the scientific project, the candidate should describe his research plan, within 3 to 5 years, framing it on his career development, particularly in the context of FCUL, namely within the scope of the FCUL R&D unit, CMAFcIO.

The evaluation of the scientific project will focus on: a) quality and adequacy to the reality of FCUL; b) contributions to the strategic project of FCUL's R&D unit, CMAFcIO.

The scientific project should have no more than 25000 characters, including spaces.

VI - Curricular Enhancement

The curricular enhancement will enhance:

- i) the degree of compliance with the experimental profile;
- ii) the compliance of curricular elements with the Specific Domains of:
 - Computer Algebra;
 - Numerical Analysis;
 - Computational Complexity;
 - Discrete Mathematics;
 - Computational Models in the Sciences;
 - Computational Topology

VII - Ranking of candidates

Each panel member produces a list of candidates ranked by decreasing order of merit. The panel members vote individually based on their own ranked list of candidates.

In accordance with article 20 of RegULisboa, the panel members vote for the first place, then for the second place, and so on, until the ranking of all candidates admitted in absolute merit is completed. In each vote, the panel decisions are made by an absolute majority of votes.

Once the selection criteria have been applied, the selection panel prepares a final ranking list of candidates.

VIII - Public hearings

- 1) Whenever necessary, the panel may decide, by an absolute majority of votes, on its first meeting, to set up public hearings on equal terms for all the candidates admitted based on absolute merit, to clarify some points related with submitted documents.
- 2) If public hearings are necessary, they will occur between the 20th and the 50th days after the meeting for admission based on absolute merit, and all candidates shall be informed, at least 5 days before, when and where they will take place.
- 3) For public hearings meetings, both panel members and candidates can participate by videoconference.

IX – Application process

Formal procedure for application:

Applications must be submitted through the FCUL online application platform, available at:

<https://ciencias.ulisboa.pt/doc>

Applications sent by e-mail or through any other means will not be accepted.

X – Documents required for submission of applications

The application, under penalty of exclusion, must be accompanied by the following documents, in PDF format (allowing text copy but not text edition):

- a) Application request - Declarations, fully completed, dated and signed, in accordance with the form available in www.ciencias.ulisboa.pt/concursos?id=4624 .The use of this form is compulsory.
- b) Candidate's *curriculum vitae* (CV), describing the activities carried out in the different groups that, in accordance with Article 4 of the ECDU, constitute the set of duties to be performed by an Assistant Professor, structured in the terms of this notice, in order to make it easier to identify the elements and their relations with the different components and their respective evaluation aspects. It should also be organized to highlight the activities developed since 1st January of 2016. Whenever CV includes pedagogical survey about curricular units or indicators of school success, they should be based on official information of the institutions where the teaching activity took place.
- c) Short CV, using the form available in www.ciencias.ulisboa.pt/concursos?id=4624 whose information should be demonstrable in the full CV and other documents submitted.
- d) Copies of the publications selected by the candidates as the ones that best represent their activity so far, up to a maximum of five.
- e) Scientific project, under the terms of Chapter V, with no more than 25000 words, (including spaces).
- f) Declaration in commitment of honour that, once in an eligible position in the ranking list, that the candidate will integrate one of the FCUL R&D Units, despite eventual temporal or other conditioning (included in the Application request – declarations).
- g) Declaration in commitment of honour (signed by the candidate) in improving proficiency in Portuguese, in case of been hired, under the terms established on Chapter III, available in www.ciencias.ulisboa.pt/concursos?id=4624.

XI – Language

All documents required for the application must be submitted either in Portuguese or English.

XII - Formal assessment of applications, notification and exclusion

- 1) There will be “Hearing of Interested Parties” under the terms of articles 121 e 122 of the Administrative Legal Procedures Law:
 - a) Candidates not formally admitted to the call, whose non-admission is due to failure of fulfilling all admission requirements, independently of potentially being approved or not on absolute merit.
 - b) Candidates not approved on absolute merit.
 - c) Candidates on the ranking list not selected for the position.
- 2) Candidates will be notified in one of the following ways:
 - a) By e-mail.
 - b) By registered letter.
 - c) By personal notification.

- 3) The hearings must be submitted as written statements.
- 4) All interested parties can submit their comments, in writing, within a period of ten working days counting from the date:
 - a) Of the access to the sent e-mail message, according to Administrative Legal Procedures Law;
 - b) Of registration of the letter, extended by a period on account of distance, according to Administrative Legal Procedures Law;
 - c) Of the personal notification.

XIII – Members of the Selection Panel

In compliance with Articles 45 and 46 of the ECDU and in article 14 of the RegULisboa, the selection panel is composed by the following members:

Chairman: Rector of the University of Lisbon

Members:

- Professor Ercília Cristina Costa e Sousa, Associate Professor with “habilitation”, Departamento de Matemática da Faculdade de Ciências e Tecnologia da Universidade de Coimbra;
- Professor Nelma Resende Araújo Moreira, Associate Professor, Departamento de Ciências de Computadores da Faculdade de Ciências da Universidade do Porto;
- Professor Maria Fernanda de Almeida Cipriano Salvador Marques, Full Professor, Departamento de Matemática da Faculdade de Ciências e Tecnologia/ NOVA School of Science and Technology da Universidade Nova de Lisboa;
- Professor Ana Jacinta Pereira Costa Soares, Associate Professor, Departamento de Matemática da Escola de Ciências da Universidade do Minho;
- Professor Luís Eduardo Neves Gouveia, Full Professor, Departamento de Estatística e Investigação Operacional da Faculdade de Ciências da Universidade de Lisboa;
- Professor Nicolas Francesco Van Goethem, Associate Professor with “habilitation”, Departamento de Matemática da Faculdade de Ciências da Universidade de Lisboa.

July 23rd, 2024. – O Subdiretor, Prof. Doutor Jorge Manuel Rodrigues de Sancho Relvas

