

PUBLIC NOTICE

National and international applications are open by Faculdade de Ciências da Universidade de Lisboa (FCUL), for a period of 30 (thirty) working days counted from the working day immediately following the publication of this notice in *Diário da República* for 1 (one) **Full Professor position at this Faculty in the area of Physical Engineering**, to be hired through a public administration contract, as foreseen in the teaching staff list of the Faculdade de Ciências da Universidade de Lisboa, as required by Articles 37 to 51, 61 and 62-A of the University Teaching Career By-laws, amended by Decree-Law 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 joint Rule No. 373/2000 of 31st March, of the Minister of State Reform and Public Administration and the Minister for Equality, makes it mandatory that:

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

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 Doutor António Cruz Serra, Rector of the University of Lisbon, on 26th March, 2019, after confirmation of the existence of adequate budget provision and that the job is foreseen in the FCUL teaching staff list.

II - Workplace

Faculdade de Ciências da Universidade de Lisboa, located in Campo Grande, 1749-016 Lisboa.

III - Admission requirements

Eligible candidates:

1) Holders of a five year old PhD degree (or older), counted from the deadline for applications, also holding the title of Habilitation (in Portuguese “Agregação”), in compliance with Article 40 of the ECDU.

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

1.2) If the selected candidate do not have yet the equivalence or recognition or registration of his/her PhD degree, he/she must obtain the recognition of that degree, under the terms established in Decree-Law No. 66/2018, of August 16st, until the deadline to present to Faculdade de Ciências da Universidade de Lisboa the legal documents proving that the requirements for admission to the application are fulfilled, which determines that he/she is eligible to be hired through a public administration contract.

2) Good knowledge of the Portuguese language, both written and spoken.

Foreign candidates, except those from Portuguese-speaking countries, must declare in commitment of honour, that within a year after signing a possible contract, they will have a level of Portuguese Language (written and spoken) which allows them to teach students in Portuguese without any communication limitations.

IV - Admission criteria based on absolute merit

Once all application formalities have been carried out, candidates will be admitted based on absolute merit. All eligible candidates must:

- 1) Have a global curriculum that the selection panel considers to be of scientific value, the capacity to carry out research and previous teaching experience compatible with the area of Physical Engineering as put up for tender and appropriate to the corresponding teaching category of Full Professor;
- 2) Have a minimum of 45 articles, published in journals indexed in Web of Science, in the tender area.

The curricular assessment referred to in the preceding paragraphs is restricted to the period since 1st January of 2003.

For each candidate, absolute merit approval is obtained by an absolute majority of votes by the voting members of the selection panel through a roll call vote. Abstentions shall not be 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 established in No. 6 of Article 50 of the ECDU, in No. 4 of Article 5 and Article 11 of the RegULisboa, and in Articles 8 and 9 of RegFCUL. The evaluation of candidates' relative merit for their ranking 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 take into account the Pedagogical Group, the Research Group, the Other Activities Group developed by the candidate, and the scientific and the pedagogical projects. These evaluation components should be compatible with the area of Physical Engineering as put up for tender, and appropriate to the Full Professor category with the following weight:

- A) Pedagogical Group – **20%**;
- B) Research Group – **55%**;
- C) Other activities Group – **10%**;
- D) Merit of the projects about the scientific and pedagogical proposition to be developed by the candidate in the area of the tender – **15%**.

In each Group there will be an evaluation of the parameters that are next described:

A) Pedagogical Group (20%)

Each member of the jury will select autonomously nonzero weights for each parameter, which are the same for all candidates.

This Group is divided into the following parameters:

- 1) Teaching: the evaluation of this parameter should consider teaching and/or coordination of curricular units related to the disciplinary area of the call: diversity, pedagogical practices and, if available, the students opinion about those units;
- 2) Pedagogical materials: the evaluation of this parameter should consider quality and diversity of publications, computer applications, experimental prototypes, texts and teaching materials which were performed or prepared by the candidate;
- 3) Pedagogical innovation: the evaluation of this parameter should consider the promotion of new pedagogical initiatives: solid and coherent proposals for the creation and/or reformulation of curricular units, creation or reinforcement of laboratory support infrastructures (experimental and/or computational), creation or restructuring of groups of curricular units or study plans;
- 4) Academic supervision: the evaluation of this parameter should consider supervision experience of doctoral, master and undergraduate students: number, quality, scope and scientific/technological impact of publications, theses, dissertations and final reports. Quality awards and international recognition must be highlighted. Orientation, co-orientation and other mentoring activities should be clearly described;
- 5) Other: this parameter evaluates relevant work and/or professional experience, outside the academic environment, in the area of the call.

B) Research Group (55%)

Each member of the jury will select autonomously nonzero weights for each parameter, which are the same for all candidates.

This Group is divided into the following parameters:

- 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 citation numbers. The quality of the selected publications should be considered;
- 2) Projects: coordination and participation in scientific projects, derived from competitive calls, in national and international programs. The capacity to attract competitive funding, the challenges and the results (scientific and/or technological and/or innovation) should be considered;
- 3) Autonomy and leadership: the evaluation of this parameter should consider participation and coordination of initiatives to create or reinforce experimental and/or

computational laboratory infrastructure to support research. Coordination and leadership of research teams;

- 4) Recognition: the evaluation of this parameter should consider awards of scientific societies or obtained in scientific meetings, editorial and evaluation activities in scientific journals, peer evaluation activities (programs, projects, grants, prizes), coordination or participation in program commissions of scientific events, invited lectures in scientific meetings or in other universities, participation as a member of scientific societies of competitive admission and other distinctions;
- 5) Innovation: authorship and co-authorship of patents, technologies, utility 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;

C) Other activities Group (10%)

Each member of the jury will select autonomously nonzero weights for each parameter, which are the same for all candidates.

This Group is divided into the following parameters:

- 1) Outreach: this parameter evaluates articles in national and international journals and conferences, and other scientific and technological publications with professional and social impact;
- 2) R&D Services: the evaluation of this parameter considers participation in 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 outreach 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 outreach entities, highlighting their nature, scientific and technological intensity, and results;
- 3) Institutional positions: this parameter evaluates 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: the evaluation of this parameter considers participation in collective bodies (Scientific or Pedagogical Councils, ...). Individual management positions in departments, research units, course coordinations, 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 should be considered.

D) Scientific and Pedagogical Projects (15%)

- 1) In the scientific project, with the weighting of 10%, the candidate should describe his research plan, within 3 to 5 years, framing it on his career development, particularly in the context of one of FCUL's R&D unit.

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 one or more of FCUL's R&D units.

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

- 2) In the pedagogical project, with a weighting of 5%, the candidate must identify the group of curricular units for which he/she is specially qualified to teach and eventually propose new contributions in the pedagogical area that he/she intends to develop, referring to a period of 3 to 5 years, within the scope of curricular units already existing or to be created;

The evaluation of the pedagogical project will focus on: a) contributions to FCUL Programs associated to the Physics Department; b) contributions for the development of the educational offer of FCUL and/or for pedagogical innovation.

The pedagogical project should have no more than 25000 words, including spaces between words.

VI - Curricular Enhancement Factors and its application

- 1) For the following parameters the classification can be enhanced through the application of Curricular Enhancement Factors:
 - a) On the Pedagogical Group: Academic supervision;
 - b) On the Research Group: Publications; Projects; Innovation;
 - c) On the Other Activities Group: R&D Services.

Those Factors will enhance:

- i) the compliance of curricular elements with the Specific Domains of Instrumentation and metrology; and Engineering of optical systems and lasers; and Particle physics;
- ii) the degree of compliance with the Experimental profile.

This two multiplicative enhancement factors are independent and will be selected individually for each jury member in the range 1 (no enhancement) to 1.5, and will be applied to all candidates.

- 2) The jury members must use the spreadsheet made by FCUL.
- 3) Within each Group the sum of weights is 100%, and each jury member is responsible to autonomously select nonzero weights for each parameter, which will be the same for all candidates.
- 4) The spreadsheet will not allow the saturation of classifications whenever Curricular Enhancement Factors are applied.
- 5) For better understanding the process of evaluation of relative merit, the mentioned spreadsheet and the guidelines which explain in detail how it works, are available in www.ciencias.ulisboa.pt/concursos?id=2822

Ranking list of candidates

After Curricular Enhancement Factors application, 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 the candidates admitted to the tender and previously selected on the basis of 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 unitary ranking list of candidates.

VII - Public hearings

- 1) Whenever necessary, the panel may decide, by an absolute majority of votes, at 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.

VIII – Application process

- 1) Applications must be submitted:
 - a) Personally, during office hours (9.00 a.m. to 4.00 p.m.), at the office address of Núcleo de Expediente da Faculdade de Ciências da Universidade de Lisboa, Edifício C5, piso 1, Campo Grande, 1749-016 Lisboa, until the deadline;
 - b) Using the applications platform available in: <https://ciencias.ulisboa.pt/doc>
- 2) Applications submitted by email will not be accepted.

IX – Documents required for submission of applications

Applications must include the following documents:

- 1) Applications submitted personally:
 - a) Application requests, submitted in paper form (personal data and declarations), fully completed, dated and signed, in accordance with the forms available in www.ciencias.ulisboa.pt/concursos?id=2822. The use of these forms is compulsory.
 - b) Documents mentioned below, in points *i)* to *vi)* must be submitted only in digital form, in one (1) CD or one (1) USB pen, in PDF format (allowing text copy but not text edition):
 - i)* 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 Full Professor, structured in the terms of this notice, in order to make it easier to identify the elements and its relation with the different groups and their respective evaluation parameters. It should also be organized to highlight the activities

developed since 1st January of 2003. 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 took place.

ii) Short CV, using the form available in www.ciencias.ulisboa.pt/concursos?id=2822, whose information should be demonstrable in the CV context and other documents submitted.

iii) Copies of the publications selected by the candidates as the ones that best represent their activity so far, up to a maximum of five;

iv) Scientific and pedagogical projects, under the terms of Chapter V, with no more than 25000 words, each one (including spaces between words);

v) Declaration in commitment of honour that, once in an eligible position in the ranking list, the candidate will integrate one of the Faculty of Sciences' R&D Units, despite some temporal or other conditioning (integrated in the Application request – declarations);

vi) 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=2822

2) Applications submitted using the applications platform:

The documents mentioned on paragraph a) of no. 1 (Application request – declarations) and on points *i)* to *vi)* of the paragraph b) of no. 1, must be submitted online, using the applications platform, available in <https://ciencias.ulisboa.pt/doc>

X – Language

All documents of the applications must be submitted either in Portuguese or English languages.

XI - 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 that have not been admitted to the tender, for failed to meet all the requirements for admission, which don't depend to being approved or not on absolute merit.

b) Candidates not approved on absolute merit.

c) Candidates on the ranking list not approved for the post of the tender.

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 are always done in writing.

4) All the 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.

XII – 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 Rui Ferreira Marques, Full Professor, Departamento de Física da Faculdade de Ciências e Tecnologia da Universidade de Coimbra;
- Professor José Luís Campos de Oliveira Santos, Full Professor, Departamento de Física e Astronomia da Faculdade de Ciências da Universidade do Porto;
- Professor João de Lemos Pinto, Full Professor, Departamento de Física da Universidade de Aveiro;
- Professor Manuel Pereira dos Santos, Full Professor, Departamento de Física da Escola de Ciências e Tecnologia da Universidade de Évora;
- Professor Mário João Martins Pimenta, Full Professor, Departamento de Física do Instituto Superior Técnico da Universidade de Lisboa;
- Professor Margarida Maria Telo da Gama, Full Professor, Departamento de Física da Faculdade de Ciências da Universidade de Lisboa;
- José Manuel de Nunes Vicente e Rebordão, PhD, Chief Investigator, Departamento de Física da Faculdade de Ciências da Universidade de Lisboa.

1st April, 2019 – Director, *Prof. Doutor Luís Manuel Pinto da Rocha Afonso Carriço*