

## **PUBLIC NOTICE**

It should be known that, before this Instituto Superior Técnico, University of Lisbon (hereinafter referred to as IST), and within 30 working days following the day after the publication of this notice in "Diário da República" (the Portuguese Official Gazette), an international documental recruitment competition is open, in the form of an employment contract in public functions, for one position of Associate Professor in the disciplinary fields of Algebra and Topology and of Real and Functional Analysis from the Department of Mathematics of Instituto Superior Técnico, University of Lisbon, under articles 37.º to 51.º, 61.º and 62.º-A of the *Estatuto da Carreira Docente Universitária* (University Teaching Career Statute), republished by Decree-Law n.º 205/2009, from 31<sup>st</sup> August (hereinafter referred to as ECDU), and other applicable law, namely the *Regulamento Geral de Concursos para Recrutamento de Professores Catedráticos, Associados e Auxiliares da Universidade de Lisboa* (General Regulations for the Recruitment of Full Professors, Associate Professors and Assistant Professors of the University of Lisbon), approved by the Rector Order of 16<sup>th</sup> February 2015, published in the 2<sup>nd</sup> Series of Diário da República n.º 45, the joint order n.º 2307/2015 of 5<sup>th</sup> March 2015 (hereinafter referred to as Regulations).

The joint order n.º 373/2000, of 31<sup>st</sup> March, of the Minister of State Reform and Public Administration and the Minister for Equality made compulsory the inclusion of the following reference in all civil service recruitment procedure notices:

"In compliance with paragraph h) of article 9 of the Constitution, the Public Administration, as the employing entity, actively promotes a policy of equality of opportunities between men and women in access to employment and professional development, scrupulously providing for the prevention of any type of discrimination." In this sense, the terms 'candidate', 'recruited', 'teacher' and the like are not used in this notice to refer to the gender of people.

Likewise, no candidate may be privileged, benefited, harmed or deprived of any right or exempt from any duty on the grounds, in particular, of descent, age, sexual orientation, marital status, family situation, economic status, education, origin or social status, genetic heritage, reduced working capacity, disability, chronic illness, nationality, ethnic origin or race, territory of origin, language, religion, political or ideological beliefs and trade union membership.

In compliance with articles 37.º to 51.º from ECDU and other applicable law, and with article 8.º from the General Regulations for the Recruitment of Full Professors, Associate Professors and Assistant Professors of the University of Lisbon, the following terms and conditions must hold:

### **I — Rector's Order Authorization**

This recruitment procedure follows the University of Lisbon Rector's Order, dated 12<sup>nd</sup> October 2021, issued after the confirmation of budget provision and after the confirmation that the position, for which this recruitment procedure is open, is foreseen in the IST staff list, in which the functions to be carried out are defined as teaching and research activities that constitute the set of duties of an Associate Professor in the Department of Mathematics.

### **II – Place of work**

Instituto Superior Técnico  
Campus da Alameda, Av. Rovisco Pais, 1  
1049-001 Lisboa, Portugal  
and  
Campus Taguspark  
Av. Prof. Dr. Aníbal Cavaco Silva

### **III – Admission requirements and grounds of exclusion**

III.1 - In compliance with article 41.º of the ECDU, applicants to this recruitment procedure must hold a PhD degree for more than five years, by the deadline of the application.

III.2 – Chapter VI of the Regulations shall be applied in respect to the confirmation and fulfilment of the admission requisites and ground of exclusion of the candidates.

III.3 — The holders of a doctorate degree awarded by a foreign institution must demonstrate that the degree has been registered, or is equivalent to a degree awarded by, or recognised by a Portuguese university.

III.4 — The equivalence, recognition, or registration of the doctorate degree must be obtained before the deadline to sign the contract, in case the candidate ranked in an eligible place has been awarded the doctorate degree by a foreign institution.

III.5 — The non-delivery of any document that supports the candidacy, in the stated deadline, determines the non-admission of the candidacy, which will be reviewed and decided by the President of Instituto Superior Técnico to taking a final decision on the merit.

### **IV – Absolute merit approval requirements**

IV.1 – Article 10.º from Chapter III of the Regulations shall be applied in respect to the absolute merit approval of the candidates.

IV.2 - The Jury will deliberate on the approval or rejection on absolute merit of a given candidate, through justified nominal voting, abstentions not being allowed.

IV.3 - It is considered approved in absolute merit the candidate that receives a favorable vote from more than half of the voting members of the Jury.

IV.4 – A vote against the approval in absolute merit of a candidate must be based on one or more of the following circumstances:

- a) the knowledge domain and/or field of the PhD which the candidate holds is not academically adequate for the, minimally adequate, performance of the teaching duties in the disciplinary field related to this recruitment procedure and the candidate's academic background fail to compensate for this fact; and/or
- b) the relevance, quality, and impact of the curriculum vitae of the candidate, and the academic contributions and of highest impact selected by the candidate, do not demonstrate the minimum standards, to perform, in a minimally adequate way, the duties of an Associate Professor at Instituto Superior Técnico in the disciplinary field related to this recruitment; and/or
- c) the list of publications presented in the document with the most relevant academic contributions over the last 10 (ten) years mentioned in paragraph b) of IX.2 of this notice, which are considered by the candidate as the most representatives to the development and evolution of the disciplinary field of this competition, are not sufficient to demonstrate that the candidate has the necessary capabilities to have a minimally adequate performance on the

execution of the regular duties of an Associate Professor in the disciplinary field of this competition; and/or

- d) the candidate does not have, over the last 10 (ten) years, at least 8 (eight) publications listed in Thomson Reuters Web of Knowledge or in MathSciNet in relevant areas to the disciplinary fields of Algebra and Topology and of Real and Functional Analysis; and/or
- e) the scientific and pedagogical project, requested in IX.2.c) and specified in V.4.e), elaborated by the candidate, is clearly insufficient, presenting insufficiencies or severe incorrectness enough to illustrate the lack of capacities of the candidate to fulfil the set of functional duties required by an Associate Professor in the disciplinary field of this recruitment procedure, or not being supported by previous work from the candidate.

## **V – Evaluation parameters and relative merit ranking, respective percentage and final valuation**

V.1 - This recruitment procedure aims to evaluate the candidates' abilities and performance concerning the different aspects that constitute the set of duties to be performed, in accordance with article 4.º of the ECDU, as a result of their recruitment in case they are hired. According to article 4.º of the ECDU, faculty members are required to:

- a) Carry out scientific research, cultural creation or technology development activities;
- b) Carry out the teaching duties assigned to them and guide and supervise the students;
- c) Participate in activities related to university representation, scientific disclosure and economic and social knowledge transfer;
- d) Participate in management activities within the university;
- e) Participate in other duties assigned by the competent bodies in the scope of the regular activities of a faculty member.

V.2 - The selection will be made through the curriculum's evaluation method, which, according to the faculty members' general duties established in article 4.º of the ECDU, is based on the following items:

- a) Teaching;
- b) Research;
- c) Activities related to university representation, scientific disclosure and economic and social knowledge transfer, herewith defined as Knowledge Transfer;
- d) Management activities within the university;
- e) Scientific and pedagogical project.

The subjects indicated in sub-paragraphs c) and d) must be considered within the scope of sub-paragraph c) according the mentioned in no. 6 of article 50.º of the ECDU, relating to other activities relevant to the mission of the IES.

V.3 - The candidates' curriculum evaluation in each of the aforementioned areas must take into consideration the disciplinary field related to this recruitment procedure.

V.4 - The parameters to be considered in the candidates' curriculum evaluation in each of the areas defined in V.2, and the respective percentage for the final classification, are the following where special emphasis is given to the relevance, quality and impact of the curriculum vitae of the candidate, to the most relevant and

with the highest impact academic contributions as selected by the candidate and identified in the document IX.2.b), in the last 10 (ten) years:

a) Teaching (25%):

- i) Pedagogical material: parameter related to publications, computer applications and pedagogically relevant experimental prototypes developed, solely or in cooperation, by the candidate, considering their nature and impact on the national and international communities;
- ii) Teaching activity: parameter related to the curricular units coordinated or taught by the candidate, considering their diversity, pedagogical practice and the student range;
- iii) Innovation: parameter related to the candidate's ability to promote pedagogical activities, such as:
  - presentation of grounded and coherent proposals for the creation of new curricular units or for the substantial reformulation of existing ones;
  - creation or reinforcement of experimental and/or computational laboratory infrastructures used for teaching purposes;
  - creation or restructuring of groups of curricular units or curricula;
  - improvement of pedagogical practices;
- iv) Student guidance and supervision: parameter related to the supervision of PhD, MSc and Undergraduate students' works considering the number, quality, scope and scientific/technological impact of the resulting publications, theses, dissertations and final-year projects, specially the prizes awarded to these works and their international relevance;
- v) Non-academic Professional experience: parameter related to the role of relevant work developed outside of the academic environment in the scope of the disciplinary field of this competition.

b) Research (50%):

- i) Scientific publications: parameter related to books, book chapters, papers published in scientific journals and in international conferences proceedings, of which the candidate is author or co-author, considering:
  - their nature;
  - the impact factor;
  - the number of citations;
  - the technological level;
  - the innovation;
  - the diversity;
  - the multidisciplinary;
  - the international collaboration;
  - the relevance of the contributions towards the improvement of the state of the art;
  - the relevance of the works selected by the candidate as the most representative of their contribution towards the development and improvement of the disciplinary field related to this recruitment procedure.
- ii) Coordination of and participation in scientific projects: parameter related to the participation in and coordination of scientific projects, subject to competitive tendering, by the candidate, considering:
  - the territorial scope;

- the size;
  - the technological level;
  - the relevance of the contributions;
  - the innovation;
  - the diversity.
- iii) Creation and reinforcement of laboratory infrastructures: parameter related to the participation in and coordination of activities by the candidate that resulted in the creation or reinforcement of experimental and/or computational laboratory infrastructures used for research purposes;
- iv) Scientific activity development: parameter related to the demonstrated ability of the candidate to coordinate and lead research teams;
- v) Recognition by the international scientific community: parameter related to:
- prizes awarded by scientific societies;
  - editorial activities in international journals;
  - participation in editorial committees of international journals;
  - coordination of and participation in programme committees of scientific events;
  - participation as invited speaker in scientific workshops or in universities;
  - participation as a member of scientific societies with competitive admission and other similar distinctions.
- c) Knowledge Transfer (5%):
- i) Industrial Property: parameter related to the authorship and co-authorship of patents, models and industrial designs, considering their nature, territorial scope, technological level and the results achieved;
- ii) Legislation and technical norms: parameter related to the participation in and elaboration of bills and norms considering their nature, territorial scope and technological level;
- iii) Scientific and technological disclosure publications: parameter related to papers published in national journals and conferences and other scientific and technological disclosure publications, according to their professional and social impact;
- iv) Rendering of services and consulting: parameter related to the participation in activities involving the business environment and the public sector, considering the type of participation, the dimension, the diversity, the technological intensity and the innovation;
- v) Conception, planning and production of engineering, management or architectural projects: parameter related to the value of professional experiences relevant to the university's activities;
- vi) Services provided to the scientific community and to society: parameter related to the participation in and coordination of activities involving scientific and technological disclosure considering their nature and the results achieved, namely aimed at:
- the scientific community, specially through the organization of congresses and conferences;
  - the media;
  - businesses and the public sector;
- vii) Professional training programmes: parameter related to the

participation in and coordination of technological training programmes aimed at businesses and the public sector, considering their nature, technological intensity and the results achieved.

d) Management activities within the university (10%):

- i) Participation in university or school bodies: parameter related to the nature and the responsibility resulting from the duties;
- ii) Participation in the management of units or as course coordinator: parameter related to the duties, the scope of action and the results achieved by the candidate in the performance of management duties within departments and research units, coordination of courses, scientific areas or sections;
- iii) Temporary duties and tasks: parameter related to the nature, the scope of action and the results achieved by the candidate within their participation in editorial activities for international journals, in the evaluation of scientific programmes, in academic degrees' examination boards, in competition juries, and their performance of temporary duties and tasks assigned by the competent bodies, among others;
- iv) Other duties: parameter related to the performance of duties defined in article 73.º of the University Teaching Career Statutes (ECDU) and other duties within national and international scientific organizations.

e) Scientific and Pedagogical Project (10%): parameter that evaluates a scientific and pedagogical project proposed by the candidate on the disciplinary fields related to this recruitment procedure, with the objective of promoting the teaching and research activities in the disciplinary fields, with special emphasis on von Neumann and  $C^*$ -algebras and on their representation theory and on applications to mathematical physics and to dynamical systems.

V.5 – Once finally identified the candidates approved in absolute merit, based on the previous conditions expressed in IV, the Jury will proceed to the final valuation and ranking of the candidates, following the procedure established in article 20.º of the Regulations, where the preferential parameters described in VI can be used as a qualification criterion to each of the parameters described in V.4 when establishing the list mentioned in no. 3 of article 20.º of the Regulations.

## **VI – Preferential parameters**

It is a preferential parameter that the candidate has a curriculum vitae that is adequate to the disciplinary field of this competition, where special emphasis is given to the candidates' scientific production over the last 10 (ten) years.

It is a preferential parameter the contribution given to the development and evolution of the disciplinary field of this competition, with emphasis on von Neumann and  $C^*$ -algebras and on their representation theory and on applications to mathematical physics and to dynamical systems.

## **VII - Public hearings**

VII.1 - At the first meeting the Jury will deliberate about the need for a public hearing of the candidates that have been approved in absolute merit, with the exclusive aim of clarifying the information contained in the documents submitted by candidates, according to paragraph b), no. 4, article 50.º of the ECDU.

VII.2 - If the Jury decides to hold the aforementioned public hearings, those will have to take place between the 20<sup>th</sup> day and the 50<sup>th</sup> day after the deadline to submit the application, and all candidates will be informed of the date and place of the public hearings at least five days in advance.

VII.3 - The aforementioned public hearings can be done by videoconference, and the Jury must guarantee that they are done in equal circumstances to all candidates.

VII.4 - The Jury may also decide to request additional documents, in compliance with paragraph a), no. 4, article 50.º of the ECDU, with the aim of clarifying the information contained in the curriculum vitae of a given candidate.

## **VIII – Submission of applications**

VIII.1 - Applications must be submitted until the 30<sup>th</sup> working day from the date of publication of this notice in the *Diário da República*.

VIII.2 - The application documents must be submitted to the particular electronic address related to this public notice provided at the Human Resources of IST web page:

<http://drh.tecnico.ulisboa.pt/job-opportunities>

VIII.3 - The non-delivery of any document that supports the candidacy, in the stated deadline, determines the non-admission of the candidacy, which will be reviewed and decided by the President of Instituto Superior Técnico to taking a final decision on the merit.

## **IX – Application Supporting Documents**

IX.1 - The application must be accompanied by their respective application form that can be found at the Human Resources of IST web page:

<http://drh.tecnico.ulisboa.pt/job-opportunities>

where it should be explicitly referred the candidate's agreement that all communications and notifications in the scope of this competition must be made through the specific electronic mail address indicated by the candidate.

IX.2 - The application must be accompanied by the following documents:

a) Document in PDF format with the candidate's curriculum vitae that should include:

- i) The teaching, research, knowledge transfer and management activities within the university that are relevant for this competition, identifying the activities developed in the scope of the different aspects that, according to article 4.º of the ECDU, constitute the set of duties to be performed by Associate Professor, in accordance with the evaluation parameters and criteria mentioned in V.4 of this notice and which are considered relevant to the disciplinary field of this recruitment procedure; the candidate should structure the curriculum vitae such that it enables an easy and complete identification of its own contribution to the items listed in V.4, demonstrating the fulfillment of the quantitative criteria listed in IV.4;
- ii) The "Researcher ID"/"MR Author ID" which enables the identification of the publications list, their respective number of citations, according to the sources: Thomson Reuters Web of Knowledge and MathSciNet;



- b) Document with the most relevant academic contributions over the last 10 (ten) years, presented in accordance with the rules found in: <http://drh.tecnico.ulisboa.pt/job-opportunities>;
- c) Document in PDF format with the scientific and pedagogical project proposed by the candidate on the disciplinary field to this recruitment procedure, according to paragraph e) from V.4 of this notice, presented in accordance with the rules found in: <http://drh.tecnico.ulisboa.pt/job-opportunities>;
- d) PDF version of all scientific publications mentioned in the document described on the above paragraph b) from IX.2 of this notice;
- e) Other works that the candidate might consider relevant for the Jury to evaluate;
- f) A declaration on honour that testifies the candidate's fulfilment of the legal requirements for admission to this recruitment procedure.

### **X - Language**

X.1. All documents that accompany the application must be presented in Portuguese or in English.

X.2. Since some members of the jury are non-native portuguese speakers, the documents to be submitted for any rebuttal, as part of "pronúncia em sede de audiência prévia de candidatos" or "reclamações", and that the jury must consider in the analysis of the rebuttal, must be submitted in portuguese and in english.

### **XI – Composition of the Jury**

According to the ECDU (articles 45.º and 46.º) do ECDU and the "Regulamento" (article 14.º), the jury is composed of the following members:

President: Rector of the University of Lisbon

Members:

- **Doutor Jorge Manuel Senos da Fonseca Picado, Departamento de Matemática, Universidade de Coimbra;**
- ***Professor Palle Jorgensen, College of Liberal Arts and Sciences, University of Iowa;***
- ***Professor Yasuyuki Kawahigashi, University of Tokyo***
- **Professor Doutor Pedro Simões Cristina de Freitas, Instituto Superior Técnico, Universidade de Lisboa;**
- **Professor Doutor Pedro Resende, Instituto Superior Técnico, Universidade de Lisboa.**



## **Annex**

### ***Declaration on honour***

*I, (name), candidate to the recruitment procedure open to fulfil one Associate Professor position available at the staff list of Instituto Superior Técnico, Universidade de Lisboa, hereby declare on my word of honour that I fulfil the requisites present in article 17º from the "Lei Geral do Trabalho em Funções Públicas" (General Law for Labour Work on Public Functions), approved by the Law n.º 35/2014 from 20th of June, as well the requisites present in article 41º from the "Estatuto da Carreira Docente Universitária" (University Teaching Career Statutes), republished in the Decree-Law n.º 205/2009 from 31th of August, fulfil all the requisites for admission to this recruitment procedure that are predicted by the Law, in particular those expressed in Chapter IV of the "Estatuto da Carreira Docente Universitária" (University Teaching Career Statutes), the Regulations, especially the "Regulamento Geral de Concursos para Recrutamento de Professores Catedráticos, Associados e Auxiliares da Universidade de Lisboa" (General Regulations for the Recruitment of Full Professors, Associate Professors and Assistant Professors of the University of Lisbon) and in this notice.*

*I also declare that all statements herein were made with the knowledge that wilful false statements will result in my exclusion from this recruitment procedure, notwithstanding the communication of such statements to the competent authorities for criminal procedures.*

*I further declare that I understand that, in case I am placed in an eligible position within the final ranking list of the candidates, I must comply with the deadline of ten days as of the date of notification of the final ranking list to provide Instituto Superior Técnico, Universidade de Lisboa, with the supporting documents that make proof of the fact that I fulfil the admission requirements defined for this recruitment procedure.*

*I further declare that I understand that the failure to provide the supporting documents referred to in the previous paragraph, for reasons within my control, will result in my exclusion from this recruitment procedure.*

\_\_\_\_\_(place),\_\_\_\_\_ (date).

\_\_\_\_\_

*(signature)*

Instituto Superior Técnico, 3<sup>rd</sup> November 2021, The President, Professor Doctor Rogério Anacleto Cordeiro Colaço