





Public call for applications for the competitive selection procedure for admission to the 39th Cycle Ph.D. Research Course with administrative seat at the *Università del Salento* (University of Salento)

<u>Please note: The English version of the Call has been prepared exclusively to facilitate the access of foreign candidates</u>

Applications for the competitive selection procedure must be made within and **not after 13:00 (Italian time) on 17th July 2023**.

There is no contribution to participate in the competition.

academic year 2023/2024

(the official Call is approved by Rector's decree n. 594/2023)

- "Diritti e Sostenibilità" / Law and Sustainability (see attachment A);
- "Filosofia: Forme e Storia dei Saperi Filosofici" / Philosophy: Forms and History of Philosophical Knowledge / Philosophie: Formes et histoire des savoirs philosophiques / Philosophie: Formen und Geschichte des philosophischen Wissens" (see attachment B);
- "Fisica e Nanoscienze" / Physics and Nanosciences (see attachment C);
- "Human and Social Sciences" / Human and Social Sciences (see attachment D);
- "Ingegneria dei Materiali e delle Strutture e Nanotecnologie" / Material, Structure and Nanotechnology engineering (see attachment E);
- "Ingegneria dei Sistemi complessi" / Engineering of complex systems (see attachment F);
- "Lingue, Letterature, Culture e loro applicazioni" / Languages, Literatures and Cultures and their applications (see attachment G);
- "Matematica e Informatica" / Mathematics and IT (in agreement with Università della Basilicata) (see attachment H);
- "Nanotecnologie" / Nanotecnology (see attachment I);
- "Scienze del Patrimonio Culturale" / Sciences for Cultural Heritage (see attachment L);
- "Scienze e Tecnologie Biologiche ed Ambientali" / Biological and environmental sciences and technologies (see attachment M);
- "Transizione Digitale e Sostenibilità: le imprese e le Amministrazioni pubbliche nell'economia globalizzata" / Digital Transformation and Sustainability. Firms and public Administrations in the global Economy (see attachment N).







Article 1) Implementation

The call for application for the selection procedure for admission to the three-year Doctoral (Ph.D.) Research Course, accredited by the Italian Ministry of Education, Universities and Research (MIUR) with the approval of Italian National Agency for the Evaluation of Universities and Research Institutes (ANVUR) with administrative seat at the University of Salento is now open.

The detailed description of each Course (the PhD course description) is attached to this call for applications (to A from N) and is to be considered a part of it. The curricula for the three-year Ph.D. research Courses to be included in the call for applications are the following:

- Diritti e Sostenibilità (Law and Sustainability, see attachment A);
- Filosofia: Forme e Storia dei saperi filosofici (Philosophy: Forms and History of Philosophical Knowledge, see attachment B);
- Fisica e Nanoscienze (Physics and Nanosciences, see attachment C);
- Human and Social Sciences (see attachment D);
- Ingegneria dei Materiali e delle Strutture e Nanotecnologie (Material, Structure and Nanotechnology engineering, see attachment E);
- Ingegneria dei Sistemi complessi (Engineering of complex systems, see attachment F);
- Lingue, Letterature, Culture e loro applicazioni ((Languages, Literatures and Cultures and their applications, see attachment G)
- Matematica e Informatica (Mathematics and IT, see attachment H);
- Nanotecnologie (Nanotecnology, see attachment I);
- Scienze del Patrimonio Culturale (Sciences for Cultural Heritage, see attachment L);
- Scienze e Tecnologie Biologiche ed Ambientali (Biological and environmental sciences and technologies, see attachment M);
- Digital Transformation and Sustainability. Firms and public Administrations in the global Economy" (see attachment N).

In accordance with the provisions of MIUR decree 226/2021, <u>only doctoral courses</u> will be activated that have obtained from the Ministry, in accordance with <u>ANVUR's opinion</u>, accreditation (or confirmation of accreditation) following the outcome of the procedures that are still in progress.

If one of the established courses does not obtain accreditation, it will be deactivated and therefore the admission exams will not be carried out.

The cards of the PhD courses contain an overall indication of the places and scholarships announced, including:

- sholarships financed with resources from the PNRR, Mission 4, Component 1, assigned by the MUR with the Ministerial Decree n. 118/2023, with which it is intended to support the promotion and strengthening of the training and post-graduate doctoral level specialization which are divided into:







- <u>Investment 3.4.</u> "Didactics and advanced university skills" which aims to qualify university and doctoral courses through strategic objectives: <u>digitization</u>, <u>culture of innovation and internationalization</u>;
- **Investment 4.1.** "Extension of the number of research doctorates and innovative doctorates for public administration and cultural heritage" which aims to increase the reserve of human capital engaged in research-oriented activities, in **public administrations** and in **cultural heritage**.
- sholarships financed with resources under the PNRR, Mission 4, Component 2 "From research to business", Investment 3.3., assigned by the MUR with the Ministerial Decree n. 117/2023 and co-financed by companies, with which it is intended to enhance high-profile skills, especially in the areas of Key Enabling Technologies, through the establishment of dedicated doctoral programs, with the contribution and involvement of companies.

Scholarships related to DD.MM. 117 and 118 require the winner Applicants, under penalty of revocation of the same, to carry out the innovative doctoral paths provided for by the aforementioned Ministerial Decree, including the mandatory periods, where provided for by the related Investment, to be carried out abroad as well as in companies, research centers or Public administrations.

The winner Applicants of these specific thematic scholarships are therefore required to comply with all the conditions required by the MUR in the aforementioned DD.MM. 117 and 118 and in the Unilateral Act of obligation that will be signed by the University of Salento and for grants financed under the Ministerial Decree n. 117/2023 (co-financed by companies) require compliance with the rules established in the agreements stipulated with companies.

The University of Salento will proceed with the revocation of the scholarships, even possibly in porgress in the event that, for whatever reason, the ministerial funding granted should cease.

Article 2) Admission Requirements

Admission to the competitive selection procedure to one (or more) of the Ph.D. research Courses listed in article 1 is open to all the citizens, without age or citizenship limitations, who enjoy civil and political rights in their state of residence or origin and who, within the expiry date of this public call for applications, as specified in the following paragraph, hold a degree awarded in accordance with Italian Law n. 341/90, a specialist degree obtained in accordance with DM (ministerial decree) n. 509/99 or a master's degree awarded in accordance with DM (ministerial decree) no. 270/04, or a similar and suitable academic qualification obtained abroad.

The detailed notes for each Ph.D. research course (Ph.D. research course descriptions), in attachment to this call for applications (Attachments A-N) contain specific information relative to each course and indication of the specific types of <u>degree required for admission to the competitive selection procedure.</u>

Provided that they make an application by the deadline specified in article 3 below, eligible Applicants also include, those who will be awarded one of the







aforementioned degrees by the deadline of enrollment in the PhD course, pursuant to the provisions of art. 8, paragraph 1, of the D.M. n. 226/2021.

Once they have got their degrees, Applicants must immediately submit by email all the required information (name of institution which awarded the degree, date of issue, type of degree, final mark) either by means of self-certification or by means of a substitute declaration as specified by DPR (presidential decree) no. 445/00 (in the case of EU Applicants) or a certificate (for Applicants from outside the EU) accompanied by a copy of a valid identity document to the following address protocollo@unisalento.it and in cc master.dottorati@unisalento.it

Applicants who expect to get their degree by the mentioned date will be admitted conditionally to the competitive selection procedure.

Applicants, even if winners of the selection, will forfeit the possibility of enrolling in the Course if they do not achieve the qualification required for access without delay within and no later than the deadline for enrollment in the course.

Detailed information on the individual Ph.D. research courses (Ph.D. research course descriptions) included in the appendix to this public call for applications (attachments A-N).

– specifies the positions on the courses Applicants may compete for, the grants and scholarships available, and, where foreseen, any positions reserved for specific research themes, financed with grants / scholarships funded under certain Courses / projects or under agreements with external bodies which foresee mandatory research on a precise theme which has already been specified in the attached Ph.D. research course descriptions.

Positions on Courses with grants/scholarships subject to a specific research theme, for the purposes of this call for applications, are those positions, specified in the Ph.D. research course descriptions, which, by their particular nature, cannot be assigned purely and simply on the basis of assessment of the Applicant in the general competitive selection procedure but require further specific assessment beyond that of the general assessment.

An Applicant who wishes to apply to more than one course must submit different online applications to participate in each separate competitive selection procedure.

In addition to applying for general positions on Courses, Applicants can participate in the competitive selection procedure for positions on Courses with grants/scholarships subject to maximum 2 specific research themes from among those published for each Ph.D. research course.

This choice must be clearly indicated in the online application by specifying the type of grant /scholarship for the specific chosen research area.

The Applicant who presents an application for a position with a grant/scholarship subject to a specific research theme (i.e. for a position with an apprenticeship contract), expresses his / her preference for the assignment of the specific position (positions) with grant/scholarship (grants/scholarships).







The choice made by the Applicant is binding and irrevocable and entails the obligation on the part of the same Applicant, in the event that he / she is the Winning Applicant, to accept the position with a scholarship subject to a specific research theme.

In the event that the candidate is the winner of two specific research - themed scholarships at the same time, they must proceed, no later than 5 days from the date of publication of the decree in the online register, to exercise their choice for one of the two positions.

Applicants who do not apply for positions on a Course with a grant/scholarship subject to a specific research theme take part exclusively in the competitive selection procedure for general research positions (with or without a grant/scholarship).

Candidates wishing to participate in the competition for the assignment of places with a restricted topic scholarship must submit a research project in line with one of the selected thematic scholarships and will then be required to carry out the thematic research in case of assignment of the scholarship and to comply with the provisions of the agreements signed with the external financing bodies, accepting the provisions and obligations possibly provided for in the same agreements.

Aptitude or experience regarding the research theme chosen must be declared when submitting the application for participation in the competitive selection procedure and will be evaluated by the Admissions Board during the interview.

Art. 3 – Application Procedure

Applications for the competitive selection procedure must be made <u>within and</u> <u>not after 13:00 (Italian time) on 17 July 2023</u>.

The application shall be made, under penalty of exclusion, exclusively online, by following the appropriate procedure made available at: https://studenti.unisalento.it

To access the procedure, you must:

- a) Log on to the said website https://studenti.unisalento.it and **select**, **in the top right corner**, **in the MENU tab**, **your chosen language (Italian or English)**
- b) If the Applicant has not already registered, complete the registration process, clicking on "REGISTRAZIONE" in the "AREA RISERVATA", or access using your credentials;
- c) The applicant who has already registered on Esse3 can directly access the above mentioned website (accessing from "Authentication procedure LOGIN") and log in with the credentials he/she already have. On the other hand, foreign applicants will be able to access the website https://studenti.unisalento.it through "Registration for foreign candidates"/"Registrazione per candidati stranieri" without having to activate the SPID. All other applicants must activate SPID level 2. The







- information needed to activate SPID can be found at https://www.spid.gov.it/richiedi-spid;
- d) Go to the portal (authentication LOGIN) on the banner "Accedi al Portale degli studenti" and click on "REGISTRAR'S OFFICE/ADMISSION TEST/ISCRIZIONE CONCORSI/DOTTORATO DI RICERCA". Choose the Doctorate Course on which you intend to apply and, after carefully reading this call for application and its attachments, complete the on-line application form, entering all the required data. The procedure described in this paragraph **is obligatory in order to** be admitted to the competitive selection procedure.
- e) Complete the online application form and attach all required documents in pdf, jpeg or tiff formats.

The online procedure for the submission of the application for participation in the competitive selection procedure <u>will be available at https://studenti.unisalento.it starting from 13:00 (italian time) on 22 June 2023.</u>

There is no contribution to participate in the competition.

ITALIAN TAX CODE (CODICE FISCALE) FOR FOREIGN APPLICANTS

N.B. For first time users, the system will require mandatory indication of their Italian tax code (codice fiscale).

International students who do not have an Italian tax code will be directed to the following link: www.codicefiscale.com where he or she can obtain one, simply by inserting the name of the country or state in which he or she was born (e.g. someone who was born in Paris should simply put "France").

APPLICATION PROCESS

Applicants are kindly requested to rigorously follow in detail all the following instructions:

The files required by the electronic procedure must be attached in pdf, jpg or tiff formats.

These files must be inserted in the relevant section of the online procedure and must be named in the following manner:

- identity card: CI Applicant's name (eg. CI JACKSON)
- curriculum vitae: CV_Applicant's surname (e.g. CV_JACKSON)
- self-certification of exams: ESAMI_Applicant's surname (e.g. ESAMI_JACKSON)
- other qualifications: TITOLO_1_Applicant's surname; TITOLO_2_Applicant's surname; TITOLO_3_Applicant's surname; etc;
- research project: **PROGETTO PHD in Applicant's surname**;
- account MICROSOFT TEAMS for REMOTE interview for those Courses that take place entirely remotely or for candidates who have the requisites







for the Courses for which the interview is foreseen): account_TEAMS_ Applicant's surname;

- co-tutor (only for the Ph.D. research course in "Filosofia: Forme e Storia dei saperi filosofici" for which one is expressly required): cotutor_Applicant's surname (e.g. COTUTOR_JACKSON);
- curriculum and lines of research (only for the Ph.D. research course in "Human and Social Sciences")
- letter of presentation (for the doctoral course in "Physics and Nanosciences": letter presentation Applicant's surname;

It is reccomended not to exceed the overall 25 characters in the file name to avoid problems when downloading them from the Esse3 platform.

In the section related to the insertion of TITLES under "TYPOLOGY", the system asks to choose from a drop-down menu among various items (e.g. C.V., CARTA DI IDENTITA'/IDENTITY CARD, Progetto di ricerca/Research Project, Autocert. Esami/Self-certification of exams, Altri titoli/Other qualifications, interview remotely by TEAMS etc.).

For each <u>TYPOLOGY OF TITLE</u> entered, the applicant must fill in the <u>TITLE</u> section.

The applicant must include the following information in that section:

- for the TITLE related to the "CARTA DI IDENTITA'/IDENTITY CARD" it will be necessary to insert "CI surname applicant" (eg. CI JACKSON);
- for the TITLE related to the C.V. it will be necessary to insert "CV surname applicant" (e.g. ESAMI_JACKSON);
- for the TITLE related to the "Progetto di ricerca/Research Project" it will be necessary to insert "**Research Project surname applicant**" (e.g. Research Project_JACKSON);
- for the TITLE related to the "Autocertificazione Esami/Self Certification Exams" it will be necessary to insert "**Exams surname applicant**";
- for the TITLE related to the "Autocertificazione Esami/Self Certification Exams" it will be necessary to insert "title 1 surname applicant", "title 2 surname applicant", etc.
- for the TITLE related to the co-tutor (for the courses that provide it) it will be necessary to insert "co-tutor surname applicant".

Compliance with the above instructions will allow the Admissions Board to review the uploaded documents swiftly. It will also reduce the risk of dispersion of IT documents with objects that are too long during the transfer of data from the online platform.

The University of Salento declines any responsibility in those cases in which the Applicant proceeds to the transmission of the documents without following the instructions above in the naming of the attached files.

COMPLETING THE ONLINE REGISTRATION PROCEDURE







The online registration procedure terminates with the printing out from the student portal of the receipt of the application for admission to the completive selection procedure.

Once the Applicant has printed out the "admission test application", upon completion of the online procedure, he or she can consider that his or her application to participate in the competitive selection procedure has been correctly completed.

With the online submission of the application the Applicant:

- assumes personal responsibility, pursuant to article 46 and 47 of DPR (presidential decree) 445/2000, regarding the declarations he or she has made and the files attached to the online application, in full awareness of the criminal penalties deriving from false statements and / or false declarations;
- examines the methods of processing of his or her personal data.

N.B. Applicants are invited to submit their application to participate in the competitive selection procedure well in advance of the date (and time) of the deadline for submission of the application to avoid problems of various kinds that could jeopardize the successful outcome of the application transmission procedure.

Indeed, near the expiry time, because of overload due to the high number of users who are completing the online procedure, the system may be subject to slowing down.

It is possible to apply for more than one Ph.D. research course; in which case, the Applicant will have to complete more than one online application for each competitive selection procedure for which he / she intends to participate.

Each candidate may submit **only one research project** for each PhD course for which he / she is applying.

If the Applicant foresees that they will obtain a qualification **by the deadline for registering for the course**, he / she must expressly indicate this fact in the application by filling in the section regarding qualifications for admission with the insertion of the "titolo in ipotesi" ("hypothetical qualification"). In such a case, the Applicant will be admitted to the competitive selection procedure "con riserva" (conditionally).

In order to be constantly updated on news regarding this call for applications, the Applicant can subscribe to the RSS feed associated with the web page of the competitive selection procedure, by clicking on the icon labelled "Sottoscrivi Rss" ("Subscribe to RSS feed") on the page of the call for applications on the University of Salento website and adding it to his or her own RSS reader.

Article 4) Documents to be submitted

Together with the application for participation in the competitive selection procedure, completed online, the Applicant should attach the files containing:

1. a valid identity document;







- 2. a curriculum vitae containing, among other things, reference to a telephone number and an email address that may be used for all subsequent official communications related to the competitive selection procedure;
- 3. information relating to the Applicant's completed studies (self-certification or photocopy of a transcript of records indicating the exams taken and the marks obtained on the occasion of the attainment of a three-year, specialist, or Master's degree or a degree of the Vecchio Ordinamento -- an Italian degree of the format before the Bologna Process reforms), with the indication of the **relative average** of marks and of the total duration of the Ph.D. research course in question; students who have not yet completed their degree will be assessed on the basis of the average marks obtained in the exams up to the moment of submission of the application for participation in the competitive selection process;
- 4. documentation certifying that the Applicant meets the qualifications / experience / activities indicated by the individual Ph.D. research course descriptions attached to this call for applications, which the Applicant possesses and desires to be evaluated by the Admissions Board;
- 5. your research project (which must be presented together with the application for participation in the competitive selection procedure). These candidates will be evaluated, as far as the first test is concerned, on the research project presented and therefore will not take the written test. Each candidate may submit only one research project for each PhD course for which he / she is applying;
- 6. the indication of the e-mail address that the Selection Board of the competition will use for the creation of the group on the MICROSOFT TEAMS platform for the invitation to candidates for the interview.

With the application to participate in the competition, each candidate automatically **participates in the general positions announced** without the need to make this choice in the telematic platform and can request to participate, in addition, up to two specific research thematic places among those that may be announced for each PhD course.

The online application is to be considered, for all legal purposes, as an act of self certification of personal data, of the declared qualifications and the statements made as well as of the attached research project (where one is required) and therefore, with the presentation of the online application, the Applicant assumes personal responsibility, pursuant to articles 46 and 47 of DPR (presidential decree) 445/2000, regarding the declarations he or she has made and the files attached to the online application, in full awareness of the criminal penalties deriving from false statements and / or false declarations.

Article 5) Supplementation/correction of the application

The application form may be corrected /supplemented exclusively by electronic means within the deadline for submitting the electronic application indicated in the previous art. 3.







In order to modify/supplement the application, the applicant must access again the website studenti.unisalento.it and click on "MENU" by selecting "ADMISSION TEST/CONCORSI". So he/she may select the competition for which he/she wants to modify the application from "LISTA CONCORSI A CUI SI E' ISCRITTI". Then it must click on "PROCEED WITH ADMISSION" and finally on "COMPLETA IL PROCESSO SELEZIONATO" at the bottom of the page.

Thus the applicant may access again the submitted application and proceed to replace, delete or add further documents. At the end of the modifications, the applicant will have to transmit the new application form that will automatically replace the previous one already sent. The new application generated by the system will permanently cancel the previous one; so it is recommended to check the correctness and completeness of the documents attached to the last application submitted.

Article 6) Applicants with a qualification awarded by a university outside Italy

Applicants who are in possession of a degree awarded by a university outside Italy which has not yet been declared as equivalent to an Italian degree on the basis of international agreements, must accompany the application form with the following documents:

- Certification of the foreign qualification, together with a translation into Italian or English to be included in the "altri titoli" (other qualifications) of the online application; it must include explicit indication of the university exams taken and grades obtained.

The Admissions Board appointed for admission to the Ph.D. research course will, on the basis of the documentation attached by the Applicant, ascertain the eligibility of the foreign qualification for admission to the Course, "in accordance with current legislation in Italy and in the country where it was awarded and with international treaties or agreements concerning the recognition of qualifications for further education."

In case of admission to the Ph.D., successful Applicants in possession of such qualifications awarded outside Italy must submit, within ninety (90) days from the date of registration, the following documentation:

- certificates and diplomas translated and legalized by the competent Italian diplomatic or

consular representation abroad;

- declaration of value of the foreign qualification issued by the competent Italian diplomatic or consular representatives abroad.

Article 7) Responsibility

The University of Salento does not accept any liability in the event of loss of communications due to:







- -incorrect information about the residence or the address of the Applicant;
- an Applicant's failure or delay in notifying it of a change of address;
- or technical problems attributable to the email address indicated by the Applicant.

Disabled Applicants, recognized under Italian Law no. 104 of 5 February 1992, must explicitly request in their application form the required support, in relation to their disability, as well as give notification of the possible need for additional time for the completion of the admissions tests.

Article 8) Exclusion

The following applications will be automatically excluded:

- a) applications made and / or received in a manner or timing not in accordance with that specified in article 3 above of this call for applications;
- b) applications from Applicants who do not possess the specific qualifications indicated in the Ph.D. research course descriptions in the appendix to the call for applications or who do not obtain them within the deadline set by the previous art. 2;
- c) applications without a research project, which must be attached when submitting the application form within the deadline specified in article 3 of this call for applications;
- d) to be attached electronically already at the time of submitting the application for participation in the terms referred to in the previous Article 3, for all PhD courses:
- e) applications that lack a copy of a valid identity document, which must be uploaded when submitting the online application form.

Any supplementations or corrections to the application not made according to the provisions of Article 5 of this call for applications or made after the deadline has passed, will not be considered valid.

Failure to provide a curriculum vitae or failure to indicate the university exams taken (with relative average marks) or other qualifications assessed by the Admissions Board, indicated in the relevant Ph.D. research course descriptions, will prevent the Admissions Board from being able to assign any mark under the heading "TITOLI" (qualifications).

In the case of those Applicants who, on the date of application for admission to the competitive selection procedure, are not yet in possession of the degree required to take part in the competitive selection procedure, the Admissions Board may decide to evaluate this qualification, as an alternative to the final degree mark, on the basis of the average mark of the exams sustained in the second level degree course, on the basis of a correspondence criterion that shall be established beforehand.

Likewise, the Admissions Board must establish correspondence criterion in advance with regard to the evaluation of the degree mark obtained abroad by an Applicant.







Article 9) Procedure for competitive selection of Applicants

The competitive selection of Applicants will be carried out according to the timetable published on the University of Salento website for each of the competitive selection procedures (see attachments A-N), at the following link "Bandi e Concorsi/Concorsi/Ricerca/Bandi per Dottorati di Ricerca".

If impediments of any kind do not permit the respect of the examination schedule as indicated in the previous paragraph, the University of Salento will publish a notice with all the necessary changes, within three days prior to the date set for the test.

This notice will be published exclusively on the website of the University of Salento at www.unisalento.it in the "News" section and the dedicated section "Dottorati di Ricerca", accessibile from the page https://www.unisalento.it/didattica/dottorati

Both will be considered as official notification to Applicants.

A) DOCTORAL COURSES FOR WHICH THE INTERVIEW FACE TO FACE IS PROVIDED

As reported in the PhD Programs attached to this call for applications, the interview will take place face to face for the following PhD courses:

- Human and Social Sciences;
- Mathematics and Computer Science:
- Cultural Heritage Sciences;

For the hypothesis of an interview foreseen in presence, art. 14, paragraph 8, of the Unisalento Doctoral Course Regulations, as supplemented by resolution of the Board of Governors no. 94, dated 30.05.2023, establishes that:

"Candidates residing or domiciled abroad (or who, in any case, can prove, giving adequate reasons, that they are engaged abroad on the date scheduled for the interview) or who prove, by attaching appropriate medical documentation, that they are unable to reach the location fixed for the interview due to physical problems, may be admitted, upon request, to take the interview remotely. The request to take the interview remotely must be made by the candidate within the deadline specified in the application notice".

The request to take the interview remotely for PhD courses for which the "face-to-face" interview procedure is envisaged must be made by the candidate <u>no</u> <u>later than four days prior to the date of the interview</u>, by forwarding the 'attached form (Ann. 4) to the PEC address <u>protocollo@unisalento.it</u> and, for information, to the person in charge of the procedure indicated in the Course form attached to the announcement.







B) <u>DOCTORAL COURSES FOR WHICH THE INTERVIEW</u> REMOTELY IS PROVIDED

The interview will take place exclusively online for the following PhD courses:

- Law and Sustainability;
- Philosophy: Forms and History of Philosophical Knowledge;
- Physics and Nanosciences;
- Material, Structure and Nanotechnology engineering;
- Engineering of complex systems;
- Languages, Literatures and Cultures and their applications;
- Nanotecnology;
- Digital Transformation and Sustainability. Firms and public Administrations in the global Economy.
- Biological and Environmental Sciences and Technologies.

For these Courses, candidates must already indicate a valid Microsoft Teams account in the application form (annex 2).

Candidates who must take the interview electronically (all, for the Courses listed in the hypothesis referred to in point B) or only those who are entitled and request it (in the hypothesis referred to in point A), are required, in the "hypothesis for admission to the interview:

- to install the software of the MICROSOFT TEAMS platform;
- to connect, on the day and at the time set by the Commission, to their account indicated in the application form in response to the invitation received from the Commission;
- to allow the Commission, before the start of the interview, to identify, by showing the same document already sent, in copy, as an attachment to the application and to use a webcam during the interview.

Failure to connect, the unavailability of the candidate on the day and at the established time or failure to show a valid identity document constitute grounds for exclusion from the selection procedure.

All candidates are admitted to the competition subject to ascertaining that they meet the admission requirements. The Administration may decide at any time, up to the approval of the ranking, the exclusion from the competition for lack of the prescribed requirements.

If the reasons for the exclusion pursuant to this article are ascertained after the completion of the competition, the Rector with his own decree orders the forfeiture of any right resulting from participation in the competition.

The University of Salento reserves the right to carry out sample checks in accordance with the provisions of art. 71 and following of the Presidential Decree n. 445 of December 28, 2000.

Assessment of applications will be carried out by a single Admissions Board for each Ph.D. research course that will be appointed by the Rector of the University of Salento and composed of between three and five members, proposed by the Ph.D. research course's Academic Board, from among professors and researchers in the relevant Ph.D. research course's subject area. No member may participate







in admission committees for the same PhD course for which he or she was a member in the previous cycle (38th cycle) nor will he or she be able to be subsequently part of final exam adjudicating boards that evaluate the thesis Ph.D. students for whom they were on the Admissions Board. By means of the decree appointing the Admissions Board, the Rector also appoints two professors proposed by the relevant Ph.D. research course's Academic Board as substitutes for the effective members in the event of one or more of them being incapacitated or absent.

The Ph.D. research course Academic Board can propose, in addition to the components indicated above, no more than two experts, including those from abroad, chosen from public and private research bodies and institutions.

In such a case, the experts enter the Admissions Board as full members.

In the event of incapacitation, withdrawal or absence of one or more effective members of the Admissions Board, at any stage of the competitive selection procedure, the coordinator shall make the necessary replacements, based on the names of the substitutes specified in the Rector's decree nominating the Admissions Board, taking into account, where possible, the scientific affinity between the member being replaced and his or her substitute.

The competitive selection procedure to the Ph.D. research course and the corresponding marks that may be awarded are indicated in the Ph.D. research course descriptions (attachments A to N of this call for applications).

The competitive selection procedure will aim to determine not only the knowledge acquired with reference to the research areas of the Ph.D. research course, but also to determine the scientific maturity, flexibility, aptitude, motivation and resourcefulness of the Applicant in the face of possibly new areas of research.

The competitive selection procedure will be carried out, pursuant to article 12 of the University Regulations on Ph.D. research courses (D.R. n. 433/2022) by:

- a) the assessment of qualifications (curriculum, university training course, professional experience and research);
- b) the assessment of a written test or a research project, depending on the provisions of the individual Ph.D. research course descriptions.
- c) an interview (viva voce) aimed at verifying the Applicant's knowledge and aptitude in research regarding the themes of the Ph.D, and research course in the specific themes indicated in the call in the event that the candidate has also opted for specific themes, where present (max 45 pp.), as specified in detail in the individual course sheets.

Applicants are admitted to the interview only if they obtain a mark of at least 30/100 in the assessment of the research project.

The communication of the results of the assessment of the first stage (research project) will be as specified in the Ph.D. research course descriptions, attached to this call for applications, and which is an integral part of said (attachments A to N).







In the event that a Applicant has submitted an application for a position on a Ph.D. research course with a grant/scholarship subject to a specific research theme, as well as for a general position on a Ph.D. research course, the interview will be both on the general issues as well as on the specific theme and will therefore be carried out separately.

In the case of applicants who have submitted an application for a position on a Ph.D. research course with a grant/scholarship subject to a specific research theme, as well as for a general position on a Ph.D. research course, the Ph.D. research course Academic Board may award the research project (which must in all cases be the same) distinc and separate marks within the framework of the separate lists for which the candidate is applying.

The third test (interview) will be carried out separately, preferably at the same location and on the same date, for the general position on a Ph.D. research course and for a Ph.D. research course on a specific research theme indicated by the Applicant, according to the procedures described in the preceding paragraph and will give rise to distinct and separate marks.

The Applicant will pass the interview stage only if he or she achieves a mark of at **least 30/100**. Failing this, the he or she will not be admitted to the final rankings and consequently will not be in competition for the allocation of positions.

At the end of the various selection tests, the Admissions Board will draw up a separate list for each type of position (general research positions on the one hand, and positions subject to a specific research theme on the other) totalling for each type the marks awarded to each Applicant in the three different stages of the competitive selection procedure (i.e. research project, qualifications and interview).

Applicants who have opted to compete for positions on both general Ph.D. research Courses and on Ph.D. research course (one or two positions) with a grant/scholarship subject to a specific research theme and have completed all the stages of the competitive selection procedure successfully will be included, subject to the conditions referred to in the previous paragraph, in the two separate rankings with the relative marks. Applicants who have not obtained a grade of at least 60/100 in the ranking for the positions on a general Ph.D. research Course shall not be included in the rankings for the positions on Ph.D. research courses with a specific research theme.

In the event that the same Applicant is the Winning Applicant, at the same time, of a position on a Ph.D. research course with a general themes with a grant/scholarship and a position on a Ph.D. research course with a grant/scholarship subject to a specific research theme, then the University of Salento will proceed to give him/her the position on the Ph.D. research course with the specific research theme.

In the event that the winner is the winner of two places on a specific topic, he / she must proceed to opt for the chosen one no later than 5 days from the date of publication of the ranking in the online University Register.







The Winning Applicant for a position on a Ph.D. research course with a general theme who is already enrolled on the Course will be required to accept the position on a Ph.D. research course with a specific theme with a grant/scholarship, if those above him or her in the ranking renounce the offered position.

Grants/Scholarships for specific research themes will not be awarded if there are no Winning Applicants for the relevant Ph.D. research course with a specific theme.

General Positions on Ph.D. research courses, with or without a grant, and positions on a Ph.D. research course with a grant/scholarship subject to a specific research theme will be awarded by Rector's decree to Applicants who are at the top their rankings up to the number of positions available for each Course, based on the principles and according to the procedures described above.

For those Ph.D. research courses that provide positions (with or without scholarship) reserved for Applicants who have graduated abroad, in the event that nobody who graduated abroad qualifies, the University of Salento will proceed, pursuant to the combined provisions of the article 8, paragraph 2, penultimate period of the D.M. (ministerial decree) no. 45/2013 and paragraphs 4 and with paragraph 1 of the same article 8 to assign the reserved place to the ordinary ranking of suitable Applicants.

If two or more Applicants are awarded the same final mark, the youngest Applicant has precedence in accordance with article 2, paragraph 9, of Italian Law no. 191/98.

Where a grant must also be awarded, however, the following criterion is applied: article 7, fourth paragraph of D.M. n. 224/99, namely the assessment of the Applicant's financial situation. In case of a tie, therefore, the scholarship will be awarded to the Winning Applicant in possession of a lower ISEE (level of income).

The rankings will be approved by the Rector by decree and published at www.unisalento.it in the "Dottorati di Ricerca" (Ph.D.) section via the link "Bandi e Concorsi" (Calls and Competitive Selection), as well as the in online section of the "Albo" (official register), which will be considered as official notification to Applicants.

This Administration will not send individual messages to interested parties considering the publication of the rankings in the forms and in the manner described above.

The number of places and scholarships announced with the aforementioned provision may be subject to a subsequent extension as a result of the participation of the University in competitive tenders, public notices issued by public or private entities or funding from private entities.

The procedures for assigning any and additional additional scholarships will be made on the basis of the rules contained in the same calls in which the University will participate, using, in the absence of indications to the contrary contained in the aforementioned calls, the general ranking of the competitions for admission to the 39th cycle of the research doctorate courses referred to in this announcement.







Article 10 - Enrollment on the Ph.D. research course

All winning Applicants admitted to the Ph.D. research course are required, under penalty of forfeiture, to proceed with online registration to the same, <u>within 10</u> days of the date of publication of the rankings on the University website www.unisalento.it in the section dedicated to "Dottorati di Ricerca" (Ph.D.) via the link *Bandi e Concorsi* (Calls and Competitive Selection), and in the online *Albo* (Official register), following the procedures that will be indicated in a special document that will be published together with the decree approving the workings of the Admissions Board.

To enrol on the course all Winning Applicants (including Winners of grants/scholarships) will also have to pay, within the peremptory term of 15 days of the date of publication of the rankings on the University website www.unisalento.it in the section dedicated to "Dottorati di Ricerca" (Ph.D.) via the link Bandi e Concorsi (Calls and Competitive Selection), and in the online Albo (Official register), in a single payment the Puglian (Apulian) regional tax for "diritto allo studio" (Right to Education).

Winning Applicants will not be contacted individually.

The deadline indicated in the previous paragraph (<u>term of 15 days</u>) is the last within which to have obtained the qualification in the case of candidates who have submitted an application with reserve.

Winner Applicants who fail to register for the first year within the time limits indicated above will be considered to have tacitly renounced their position.

The University of Salento at any time of the procedure and also after the start of the Ph.D. research course, may carry out targeted and random checks, under article DPR 71 (presidential decree) no.445 of 28 December 2000, regarding the information and declarations produced by the Applicants, regarding the validity of the documents attached by the Applicants to the online application and it may also request the original of the aforementioned documents.

The University of Salento can decide at any time, with appropriate motivation, to exclude Applicants from the competitive selection procedure due to an absence of the requisites required by the call for applications.

Art. 11) Renunciations and Scrolling of the Rankings

In the event of renunciation or withdrawal by the Winning Applicant for a position (with or without grant) the position that has become available will be assigned by Rector's decree according to the order of the rankings.

In case of scrolling, the succeeding winners will have a period of 5 days from the individual notification of the scrolling to proceed with the acceptance of the relevant place.







The deadline for proceeding with the scrolling of the ranking is of 90 days from the start date of the course, with the exception of the hypothesis of additional places with scholarship funded by external bodies or resulting from the participation of the University in selective procedures.

Article 12) Grants, rights and obligations of Ph.D. students

Successful winning Applicants must also declare are in their applications:

- that they have not previously received any other grants/scholarships for the attendance of a Ph.D. research course;
- that they will undertake not to cumulate the amount of the grant/scholarship with any other grant/scholarship for any reason whatsoever, except with those explicitly granted, in addition to the Ph.D. research course grant/scholarship, by national or international institutions to allow training or research abroad or anywhere else away from the seat of the Ph.D. research course;

Scholarships will last one year and shall be renewed provided that the student has completed the course of activities for the previous year, subject to the obligation to disburse the grant/scholarship after passing the evaluation to be carried out by the Academic Board by September 31th of each academic year.

The confirmation of the grant/scholarship for the years subsequent to the first is done by formal resolution of the Academic Board of the Ph.D. research course in question.

A negative judgment on the part of the Academic Board will result in the forfeiture of the doctorate.

The amount of the grant is determined by the Ministry of Education, Universities and Research (MIUR) n. 247 on February.

This amount may be adjusted with any increase envisaged by law and by ministerial norms and regulations on the subject. The duration of the scholarship is equal to that of the Ph.D. research course (three years).

The scholarships funded by IIT are higher than the standard amount, established by the agreement signed with the Institute.

The grant is paid by means of monthly payments, in arrears.

The amount of the scholarship is increased by 50% for any periods of residence abroad, from a minimum of 20 consecutive days to a maximum of 12 months, except as provided for in the case of special agreements.

The Ph.D. research course has a duration of three years.

Students are required to attend the courses and carry out the teaching, study and research activities envisaged by the Academic Board and to present, at the end of each year of said course, to the Academic Board, a report on the research activity carried out and the results achieved, in the terms and in the manner established by the Academic Board itself and on the basis of the indications contained in the







operational indications issued by the Rector with protocol no. 42975, on 03/27/2020.

The evaluation of the Ph.D. students' activities must be carried out by the Academic Board at least once a year, generally within 30 days from the end of the Ph.D. research course year.

The presentation of the thesis for the final exam must take place within the deadline set by article 19 of the Ph.D. regulations currently in force. The Academic Board will submit the thesis to the assessors only in the event of a positive judgment granted to the candidate's course of studies and the achievement of the necessary ECTS in the three years of the course.

For anything not specified in this article about the rights and duties of Ph.D. students and the institution of the interruption, suspension, revocation or withdrawal from the Course, please refer to the provisions article 22 of the regulations in force regarding Ph.D. research courses issued by Rector's decree no. 433/2022.

Article 13) Exemption from contribution for accessing and attending the Course

All students enrolled in Ph.D. research courses are exempt from the payment of fees for access and attendance of the said courses with the exception of the regional tax provided for in the following article and the stamp duty required by law.

Art . 14) Regional tax for the Right to Education

All students enrolled in the Course of study will have to annually pay the amount of the regional tax for the Right to Education in accordance with the amounts set annually by the Puglia region Right to Education agency (ADISU) pursuant to art. 11 of Italian Regional Law (Puglia) 45/2012.

The amounts to be paid will vary on account of the student's ISEE (level of income) values at the time of enrolment:

| Regional right-to-study | ISEE (level of income) values |
|-------------------------|--|
| tax | |
| € 120,00 | Students with ISEE equal or inferior to €23.000,00 |
| € 140,00 | Students with ISEE between € 23.001,00 ed € |
| | 46.000,00 |
| € 160,00 | Students with ISEE superior to € 46.000,00 |

In case of failure to indicate their ISEE value, the student will be liable to the highest level of regional tax (€ 160,00).

The amount of the regional tax for the Right to Education and the values for the ISEE bands may be subject to change according to regional regulations.

In such a case, further details will be communicated.







Article 15) Exemption for Ph.D. students with disabilities

Specific forms of total or partial exemption from the payment of taxes and / or contributions for disabled students are envisaged, both with a degree of disability, following the Italian scale of diability, equal to or greater than 66%, and with disability between 31% and 65%.

Students with a recognized disability equal to or greater than 66% are exempt from paying taxes and contributions.

Students with disabilities between 31% and 65% benefit from a partial exemption from the registration fee with linear application until it is zeroed for percentages greater than or equal to 65%.

Art. 16) Intellectual property of research results and publications

Without prejudice to the Italian copyright law (Legislative Decree 633/1941 and subsequent modifications), The intellectual and industrial property rights regarding the results achieved by the PhD student, including, by way of example and not limited to, software, industrial inventions, whether patentable or not, know-how, models, data and data collections, are regulated in accordance with the current legislation and the University regulations and, possibly, on the basis of what is established in the individual agreements with the universities, companies or entities involved.

Article 17) Procedure for attaining a "Dottorato di ricerca"

The procedures relating to the presentation of the Ph.D. thesis and the appointment of the Evaluators and Final Examination Board are contained in the guidelines for the conferment of the title of "Dottorato di ricerca" attached to the D.R. (Rector's decree) n. 105, on 02/21/2017.

The timing of the presentation of the doctoral thesis is instead fixed by article 19, third paragraph of the current Ph.D. research course regulations issued by Rector's decree n. 433/2022.

Article 18) Final Thesis

Ph.D. theses must be in digital format in order to allow their filing, as required by law at the National Libraries of Rome and Florence and at the University of Salento open-access institutional archive if it is already active and available.

The conferment of the certificate of attainment of the title of "Dottorato di Ricerca" is dependent on the depositing, by the interested party, of the final thesis in the University of Salento open-access institutional archive which will guarantee its preservation and availability for public consultation and which will deposit the said thesis, as required by law, at the National Libraries of Rome and Florence.







Article 19) Accessibility of Ph.D. theses

Accessibility to the Ph.D. thesis in the University of Salento open-access institutional archive may be subject to restrictions, for the following reasons:

- a) parts of the thesis have already been submitted to a publisher or are awaiting publication;
- b) the thesis contains sensitive content data (article 4 of decree n. 196, June 30, 2003);
- c) the thesis is financed by external entities that have rights over it and over its publication;
- d) parts of the thesis have been discussed at a date that is earlier than the discussion and thus subject to patent protection;

In the cases referred to in letter b), the thesis will only be made available if it is possible to make the data anonymous.

As for the other cases, there could be a 12-month suspension of free access, but only after the Academic Board has expressed its approval and following a reasoned request on the part of the student countersigned by his/her tutor.

The suspension of free access can be extended, with a similar procedure, for a further 6 months. Any request for a longer suspension period, in any case not exceeding three years, in exceptional and duly justified cases will be evaluated by the Rector.

At the end of the suspension period, the thesis will however be made freely available for consultation.

Article 20) Reference Regulations

Those matters which are not covered by this call for applications are subject to the rules laid down in the University Regulations for the establishment and organization of Ph.D. research courses (DR. Rectors decree no. 433/2022).

The following applies to public employees enrolled in the Ph.D. research courses: article 2, paragraph 1, of Italian Law no. 476/84 as recently amended with Italian Law n. 240/2010.

This call for applications contains an English translation that cannot be used for legal purposes and is exclusively designed to assist foreign Applicants.

Article 21) Privacy policy

Article 13 of Italian Law no. 196 (30 June 2003) establishes that the personal data provided by the Applicants to the University of Salento at the time of application shall be used exclusively for institutional purposes and for the completion of any inherent procedures conducted by the persons carrying out the competitive selection procedure, also by the Admissions Board (at the University of Salento, Ufficio Master e Dottorati), even with the use of computerized procedures, in the manner and within the limits required for the above purposes, even in the event of any communication to third parties pursuant to current national and EU







legislation. Providing such information is necessary to assess the Applicants' eligibility and qualifications and failiure to do so may preclude such an assessment. Applicants are entitled to various rights under article 7 of the Italian Law no. n. 196/03, in particular, the right to access their personal information, to request correction, supplementation and cancellation if such information is incomplete, incorrect or collected in violation of the law, and to oppose their processing for legitimate reasons by directing requests to the Rector of the University of Salento, Prof.Fabio Pollice Piazzetta Tancredi 7-73100 Lecce.

The complete information on the processing of personal data can be viewed at the following address:

https://www.unisalento.it/documents/20143/970815/Informativa+trattamento +dati+degli+studenti.pdf/b6722c1f-170f-a094-5ba8-98abf4a5ba2e

Article 22) Responsible parties for the application and competitive selection Procedure

The Master and Dottorati Office at the Università del Salento is responsible for any procedural aspect related to this call for applications.

The person in charge of the administrative procedure and data processing is indicated in the attached sheets (A - O).

One can also contact the Ufficio Master e Dottorati at the following telephone numbers +39 (0)832/9210-9211-9238-9041-9232, e-mail addresses: master.dottorati@unisalento.it

Foreign applicants can request information on the admission procedures to the PhD competition to the **WELCOME OFFICE** welcome.office@unisalento.it

Article 23) Final Provisions

This call for applications will also be advertised by electronic means on the site www.unisalento.it in the "News" section and in the "Dottorati di Ricerca / Bandi per Dottorati di Ricerca" section, as well as on the European Euraxess website and on the Italian Ministry of Education, Universities and Research (MUR) website.

The Rector (Prof. Fabio POLLICE)



"Account Microsoft Teams".





Annex 2

(for Phd courses that take place online for all candidates)

| SUBJECT: | Competitive | • | | 39 th cy | cle. Accou | nt for | an ir | nterview | via |
|---------------------|------------------------------------|---|---------------------------|-----------|---------------|--------------|-----------|--------------------------|---------------------|
| | MICROSOFT | TEAMS – | Name | and | surname | of | the | applic | ant: |
| | | | | | | | | | |
| To the pers | son responsib | le for the a | dmissio | ns pro | cedure | | | | |
| | | | | | | | | | |
| The un applicant):_ | dersigned, teln the competiti | (insert | name _, born a mail | and at | surn | ame . hav | , ving | of residen applied | the t in l to |
| participate i | n the competiti | ive selection | procedur | e for a | dmission | to the | e PhI |) Cours | e in |
| | | IN | DICATE | S | | | | | |
| | wing mail acco tem (write clear | | | via a | video call | using | g the | "Micro | soft |
| | | | | | | | | | |
| | | | | | | | | | |
| N.B. This form | n must be attach | ed by the cand | didate in th | ne telen | natic platfor | m in t | the se | ction na | med |







(Annex 3)

| ECT: Co | mpetitive | selection | procedure | for | the | PhD in |
|-----------|--|---|------------------------------------|---|--|---|
| de | gree obtained | d and the ex | ams - Name | and surn | ame of the | he applicant: |
| | To the | person res | ponsible for | r the adm | issions p | orocedure |
| dersigne | d (insert nam , having a the PhD Cou | ne and surnar , resident applied to par arse | me of the appin rticipate in th | olicant): , tel. e competit | ive selecti | , mail on procedure |
| | | DEC | CLARES | | | |
| tained th | e follow Adm | ission qualifi | cation: | | | |
| Name o | of the award | ing institut | ion: Univers | ity of | | |
| | | | | | | |
| Name | of | th | e | degree | р | rogramme: |
| | | | | | esumed | graduation |
| Final m | ark: | | | | - | |
| | | | | abla fan | | l |
| | ım and ma sity | | | | | system: |
| | dersigned the stained the stai | degree obtained To the dersigned (insert name), having a sission to the PhD Countries and the follow Admit adments of the award Type of degree (the e.g. M. Sc., M. phil., etc. Name of Date in which the date: | degree obtained and the ex | To the person responsible for dersigned (insert name and surname of the appring president in, resident in, having applied to participate in the dission to the PhD Course DECLARES tained the follow Admission qualification: Name of the awarding institution: Univers Type of degree (the applicants must insert the e.g. M. Sc., M. phil., etc.,): Name of the degree has been awarding in which the degree has been awarding i | To the person responsible for the adm dersigned (insert name and surname of the applicant):, resident in, tel, having applied to participate in the competit hission to the PhD Course DECLARES tained the follow Admission qualification: Name of the awarding institution: University of Type of degree (the applicants must insert the type of the e.g. M. Sc., M. phil., etc.): Name of the degree | dersigned (insert name and surname of the applicant): |

N.B. This form must be attached by the candidate in the telematic platform in the section named "Autocert. esami/Self certification exams"







(Annex 4)

(only and exclusively for Phd Courses that are not already held online for all candidates)

| SUBJECT : Competitive selection procedure for the PhD in |
|---|
| To the person responsible for the admissions procedure |
| The undersigned (insert name and surname of the applicant):, orn at, resident in, tel, mail, having applied to participate in the competitive selection procedure or admission to the PhD Course in |
| DECLARES |
| That he / she |
| is resident or living outside Italy and precisely at the location below |
| Or that he / she |
| is employed or engaged outside Italy on the date set for the interview for the following motives or to be unable to be present in person in the date and place planned for the interview |
| Therefore, he or she requests, pursuant to the provisions of article 8 of the call for applications to the competitive selection procedure which he or she has read carefully and its entirety and according to the procedures specified therein, to be allowed to conduct he interview remotely via a video call using the "Microsoft TEAMS" system and indicates he following mail account (write clearly and legibly): |
| The undersigned assumes responsibility, pursuant to articles 46 and 47 of DR Presidential Decree) no. 445/2000, for the declarations made and the files attached to the online application, in full knowledge of criminal sanctions resulting from false attestations and / or false declarations. |
| Date Signature |

N.B. A valid identity document must be attached to this form, to be completed according to the terms of article 5 of the call for applications for the competitive selection procedure. This form must be sent to the email address of the protocollo@unisalento.it within the deadline of the call for applications.







All. H)

CORSO DI DOTTORATO IN "MATEMATICA E INFORMATICA"

(organizzato congiuntamente con l'Università della Basilicata)

CompPhD School in "Mathematics and Computer Science"

| Dinautimenta vuerenzanta | Dinartimanto di Matamatica a Elaica "Escrit De |
|-------------------------------------|--|
| Dipartimento proponente Department | Dipartimento di Matematica e Fisica "Ennio De Giorgi". Il Corso di dottorato è istituito ed organizzato in convenzione con l'Università degli Studi della Basilicata con rilascio del titolo congiunto. Department of Mathematics and Physics "Ennio De Giorgi" |
| Constitution | Professional Association and all according |
| Coordinatrice | Prof.ssa Angela Anna Albanese - tel. 0832/297426 |
| Coordinator | angela.albanese@unisalento.it |
| <u>Durata</u> | 3 anni |
| Total duration | 3 years |
| Posti e borse di studio | Numero complessivo di posti: 8 |
| | Posti da assegnarsi nell'ambito della graduatoria generale di cui con borsa a valere sul PRO3 di cui senza borsa di studio |
| | Posti a tematica vincolata: 6 (sulla base di un'unica graduatoria di idoneità) di cui a valere sul PNRR - D.M. n. 118 4 di cui a valere sul D.M. n. 117 (cofinanziata da Famas System S.p.A. 1 |
| | - di cui a valere sul PNRR Progetto HPC 1 Il candidato che concorra per i posti a tematica vincolata dovrà presentare il progetto di ricerca su una delle linee di ricerca relative alle tematiche vincolate di seguito indicate. L'assegnazione a ciascun vincitore delle singole borse tematiche nell'ambito della graduatoria a tematica vincolata verrà effettuata dal Collegio dei Docenti. |







Le linee di ricerca per i posti a tematica vincolata sono di seguito elencate:

- N. 1 Posto a tematica vincolata a valere sul D.M. n. 118 è finalizzato allo svolgimento della seguente linea di ricerca:

Algebre non-associative e loro applicazioni: La ricerca sarà focalizzata sulla teoria delle algebre non-associative e sulle loro applicazioni a problemi della Fisica e della Meccanica Statistica, in particolare allo studio delle soluzioni insiemistiche dell'equazione di Yang-Baxter.

- N. 1 Posto a tematica vincolata a valere sul D.M. n. 118 è finalizzato allo svolgimento della seguente linea di ricerca:

Prequantizzazione geometrica, algebroidi di Lie e geometria non commutativa: La ricerca sarà focalizzata sullo studio della geometria differenziale non commutativa e della K-teoria degli algebroidi di Lie transitivi; in particolare quelli associati in modo naturale a una struttura simplettica nel contesto della prequantizzazione geometrica.

- N. 1 Posto a tematica vincolata a valere sul D.M. n. 118 è finalizzato allo svolgimento della seguente linea di ricerca:

Teoremi di completezza per sistemi di equazioni alle derivate parziali: La tematica riguarda risultati di completezza per classi di particolari soluzioni di sistemi di equazioni alle derivate parziali (soluzioni polinomiali, polinomiali-esponenziali, ecc.). Questi risultati verranno considerati non solo nell'ambito della completezza alla Mergelyan, ma anche nell'ambito dell'approccio indicato da Picone, ossia dimostrandone proprietà di completezza in opportuni spazi funzionali definiti sulla frontiera di un dominio.

- N. 1 Posto a tematica vincolata a valere sul D.M. n. 118 P.A. è finalizzato allo svolgimento della seguente linea di ricerca:

Metodologie e Tecnologie per la Data Governance e la Valorizzazione dei Dati: La tematica riguarda gli aspetti metodologici e tecnologici collegati alle nuove architetture per la gestione dei dati (data lake, data mesh, data fabric, data marketplace) con una particolare attenzione all'aspetto della governance dei processi di adozione di queste nuove architetture e alla valorizzazione e riuso dei dati considerati







come elementi di valore.

- N. 1 Posto a tematica vincolata a valere sul D.M. n. 117 e cofinanziata da Famas System S.p.A. è finalizzato allo svolgimento della seguente linea di ricerca:

Studio e definizione di un nuovo modello intelligente tecno-organizzativo che utilizzi tecnologie e dati digitali per supportare le decisioni e migliorare lo sviluppo di reti di infrastrutture di trasporto urbane ed extraurbane moderne, resilienti, sostenibili e interconnesse.

- N. 1 Posto a tematica vincolata a valere sul PNRR - Centro Nazionale di Ricerca in High-Performance Computing, Big Data and Quantum Computing (CUP F83C22000740001), codice identificativo Progetto CN_00000013 è finalizzato allo svolgimento della seguente linea di ricerca:

Metodi matematici per la prevedibilità di eventi climatici estremi: La tematica del progetto di ricerca mira a sviluppare metodi matematici per estrarre informazioni da dati multi-dimensionali riguardanti estremi climatici e meteorologici utili per applicazioni in ambito ambientale. Lo scopo è di fornire valide indicazioni circa la predicibilità a lungo termine di inondazioni, siccità, onde di calore, pioggia e mareggiate, inclusa la loro possibile frequenza di accadimento futura e i corrispondenti impatti a livello socio-economico.

Altri posti con borsa potranno essere assegnati nell'ipotesi di successivi finanziamenti di borse di dottorato da parte di istituzioni regionali o altri enti pubblici e privati.

Positions and scholarships

| <u> </u> | 8 |
|--|---|
| Funded Positions assigned on the basis | |
| of the general ranking: | 2 |

Of which:

- Positions with Fellowships funded by PRO3
 Project 1
 Positions with no Fellowships: 1
- Position with fellowship on specific topics6Of which:







- -Position with fellowship **on specific topics** funded by PNRR D.M. n. 118

4

- -Position with fellowship **on specific topics** funded by PNRR D.M. n. 117 and by Famas System S.p.A.
- Positions with Fellowships **on specific topics** funded by PNRR Project HPC

The candidate who competes for the positions with a constrained theme must present the research project on one of the research lines related to the topics indicated below.

The assignment to each winner of individual thematic scholarships within the restricted thematic ranking will be carried out by the governing Board of PhD programme in Mathematics and IT.

Fellowships on specific topics are listed below

- N.1 fellowship funded by D.M. n. 118 in the following research line:

Non-associative algebras and their applications: The research will focus on the theory of nonassociative algebras and their applications to problems of Physics and Statistical Mechanics, in particular to the study of set solutions of the Yang-Baxter equation.

- N.1 fellowship funded by D.M. n. 118 in the following research line:

Geometric prequantization, Lie algebroids and noncommutative geometry: This Ph.D project is devoted to the study of the K-theory and the noncommutative differential geometry of transitive Lie algebroids. The main interest lies in those naturally associated to symplectic algebroids structures in the context of geometric prequantization.

- N.1 fellowship funded by D.M. n. 118 in the following research line:

Completeness theorems for systems of partial topic <u>differential equations</u>: The concerns completeness results for classes of particular solutions of systems of partial differential equations (polynomial, polynomial-exponential solutions, etc.). These results will be considered not only in the







context of completeness to Mergelyan, but also in the context of the approach indicated by Picone, that is, demonstrating properties of completeness in appropriate functional spaces defined on the frontier of a domain.

- **N.1 fellowship funded by D.M. n. 118 P.A.** in the following research line:

Methodologies and Technologies for Data Governance and Data Valorisation: The theme concerns the methodological and technological aspects related to the new architectures for data management (data lake, data mesh, data fabric, data marketplace) with particular attention to the governance aspect of the adoption processes of these new architectures and to the enhancement and reuse of data considered as elements of value.

- N.1 fellowship funded by D.M. n. 117 and by Famas System S.p.A. in the following research line:

Study and definition of a new technoorganizational intelligent model that uses digital technologies and data to support decisions and improve the development of modern, resilient, sustainable and interconnected urban and extraurban transport infrastructure networks.

- N.1 fellowship funded by PNRR Project HPC in the following research line:

Mathematical methods for the predictability of extreme climate events: The research project aims at developing mathematical methods to extract valuable information from high-dimensional data sets concerning Compound Weather and Climate Extremes for environmental applications. The target is to provide useful guidance about the long-term predictability of floods, droughts, heat waves, rainfall and sea storms, as well as on their possible future occurrence frequency and the ensuing socioeconomic impacts.

The funded positions could be increased depending on the funding of other proposals for PhD positions.

- Algebra: Teoria dei gruppi e delle algebre, combinatoria e teoria delle rappresentazioni.
- Geometria: Geometria combinatoria, geometria differenziale, geometria algebrica.







- Analisi Matematica: Calcolo delle variazioni, equazioni alle derivate parziali, analisi funzionale, analisi complessa, teoria degli operatori.
- Probabilità e Statistica Matematica: Teoria dei processi stocastici, copule e statistica multivariata; applicazioni alla

finanza e alle scienze ambientali e geofisiche, biostatistica, teoria dei segnali.

- Fisica Matematica: Termodinamica dei sistemi continui, teoria della relatività generale e della gravitazione, cosmologia, meccanica statistica, sistemi complessi, reti neurali, complessità biologica, teoria delle perturbazioni hamiltoniana, random dynamical systems, soft matter e biomeccanica, sistemi integrabili.
- Analisi Numerica: Teoria dell'approssimazione, trattamento numerico di equazioni differenziali ed integrali, metodi numerici per big-data e identificazione parametrica in modelli applicativi, applicazioni in campo energetico.
- Informatica: Basi di dati, ingegneria del software, algoritmi, grafica, reti e sistemi distribuiti, intelligenza

artificiale e machine learning (con particolare riferimento ad applicazioni di visione artificiale, image processing, image

recognition, modelli previsionali per dati multimediali, fact checking, big-data analytics basati su deep learning).

- Algebra: Group theory, Combinatorics, Theory of algebras, Representation theory.
- Geometry: Combinatorial geometry, Differential geometry, Algebraic geometry.
- Mathematical Analysis: Calculus of variations, Partial differential equations, Functional analysis, Complex analysis, Theory of operators.
- Probability and Mathematical Statistics: Stochastic processes, Copulae and multivariate statistics; applications to finance and to environmental and geophysical sciences, biostatistics, signal theory.
- Mathematical Physics: Thermodynamics of continuous systems, theory of general relativity and gravitation, cosmology, statistical mechanics, complex systems, neural networks, biological complexity, Hamilton's perturbation theory, random dynamical systems, soft matter and biomechanics, integral systems.
- Numerical Analysis: Approximation theory, Numerical treatment of differential and integral equations, Numerical methods for big-data and parametric identification in application models, applications in energy field.







| Requisiti di partecipazione | Computer Science: Data Bases, Software engineering, Algorithms, Graphics, Nets and distributed systems, Artificial Intelligence and Machine Learning (artificial vision, image processing, image recognition, forecasting models for multimedia data, fact checking, big-data analytics based on deep learning). - Laurea (ante DM 509/1999) o Laurea |
|-----------------------------|---|
| | Specialistica/Magistrale (ex DM 509/1999 e DM 270/2004) in qualsiasi disciplina. - Altro titolo dichiarato equivalente o equipollente ai sensi della normativa vigente per la partecipazione ai pubblici concorsi. - Titolo analogo conseguito presso Università straniere legalmente riconosciute. |
| Requirements for admission | Master's Degree or analogous title got in legally recognized foreign Universities. |
| Modalità di selezione | Valutazione dei titoli (max 10/100): percorso di formazione universitaria, esperienze professionali e di ricerca. La Commissione assegnerà il seguente punteggio per il voto della Laurea Magistrale, Specialistica o del Vecchio Ordinamento: (max 6 punti): 6 punti - 110 e lode 5 punti - 110 4 punti - 108-109 3 punti - 106-107 2 punti - 104-105 1 punto - 101-102-103 Saranno riservati fino a 4 punti a eventuali pubblicazioni e alla tesi di laurea. I titoli che il candidato intende proporre per la valutazione della Commissione dovranno essere presentati unitamente alla domanda di partecipazione al concorso. Sarà onere del candidato indicare tutte le informazioni o allegare tutti i documenti utili a ricostruire le esperienze e le attività svolte. La valutazione dei titoli sarà effettuata dopo la valutazione del progetto ed esclusivamente per i candidati che saranno ammessi al colloquio. Progetto di ricerca (max 45/100) Il progetto di ricerca dovrà essere, al massimo, di quattro pagine. |







Esso dovrà includere le seguenti parti:

- Titolo e tematica della ricerca;
- Abstract:
- Stato dell'arte:
- Metodologie scientifiche per il conseguimento dei risultati;
- Obiettivi e finalità della ricerca;
- (Abstract e Stato dell'Arte non potranno superare la lunghezza di una pagina)

Il progetto potrà essere redatto in italiano o in inglese.

Al colloquio sono ammessi i candidati che abbiano riportato nella valutazione del progetto di ricerca un punteggio minimo di 30.

Colloquio (max 45/100)

Il colloquio sarà volto a verificare la preparazione del candidato e l'attitudine alla ricerca su tematiche oggetto del dottorato.

Durante il colloquio sarà verificata la conoscenza della lingua inglese.

La verifica della lingua inglese per tutti i candidati nonché della lingua italiana per i soli candidati stranieri prevede l'assegnazione di un **punteggio pari a max 5/100** da ricomprendersi nel punteggio massimo conseguibile al colloquio.

Il colloquio si considera utilmente superato ove il candidato riporti un punteggio pari ad almeno **30/100**.

Selection procedure

MAXIMUM SCORES FOR EACH TEST:

Evaluation of scientific CV is according to the following criteria:

- Master's Degree: max 6 points
- Scientific publications: max 4 points

The candidates should submit any qualifications, document or publication which could be considered for the evaluation at the time of application. The examination board shall proceed to make the assessment of the scientific CV later than the evaluation of the research project, just for those candidates who have been admitted to the interview.

Research Project: max 45 points

Research project with a maximum length of four pages.







The project must include the following parts:

- -Title and topic of research.
- Abstract;
- State of the art:
- Scientific methodologies for the achievement of Results;
- Objective and Scope of Research;
- (State of the art and abstract cannot exceed the length of one page);

The project should be written in Italian or English.

To be admitted to the interview the candidates must have in the evaluation of a research project score equal to or greater than 30 points.

Interview: max 45 points

Interview will be devoted to test the candidate background and his/her attitude to research for what concerns the topics of the Ph.D. Course.

The curricula and the interviews can be written/done in

Italian or English.

During the interview English language proficiency will be tested for candidates.

The test of English for all candidates as well as the Italian language for foreign applicants will award a maximum score of 5/100 points within the maximum score achievable for the interview.

To pass the interview the candidates must achieve score equal to or greater than 30 points.

Modalità di svolgimento del colloquio

Tutti i candidati svolgeranno il colloquio in presenza.

I candidati residenti o domiciliati all'estero (o che comunque, dimostrino, fornendone adeguata motivazione, di essere impegnati all'estero nella data prevista per il colloquio) possono essere ammessi, a richiesta, a sostenere il colloquio in modalità telematica.

Analogamente sarà possibile essere autorizzati, a seguito di presentazione di motivata richiesta, a sostenere il colloquio a distanza nell'ipotesi di documentati motivi di salute che siano tali da impedirne il raggiungimento in presenza della sede fissata per il colloquio.

La richiesta di sostenere la prova a distanza dovrà essere effettuata dal candidato entro i termini previsti dal bando.

Method of conducting the interview

All candidates will conduct the interview in presence.







| | Candidates residing or domiciled abroad (or who, in any case, can prove, giving adequate reasons, that they are engaged abroad on the date scheduled for the interview) may be admitted, upon request, to take the interview remotely. The request to take the interview remotely must be made by the candidate within the deadline specified in the application notice. | | | |
|---|--|--|--|--|
| Pubblicazione elenco dei candidati ammessi al colloquio | La lista dei candidati ammessi al colloquio sarà pubblicato il 12/09/2023 sul sito del Dipartimento di Matematica e Fisica "Ennio De Giorgi": | | | |
| Shortlist of candidates for the oral | Avvisi - Dipartimento di Matematica e Fisica - Università del Salento (unisalento.it) The list of those who are admitted to the interview | | | |
| exam | will be published on <u>September 12</u> , <u>2023</u> on the Website of Department of Mathematics and Physics "Ennio De Giorgi": | | | |
| | Avvisi - Dipartimento di Matematica e Fisica - Università del Salento (unisalento.it) | | | |
| Data di svolgimento del colloquio | Il colloquio si svolgerà in data <u>15/09/2023</u> , ore 10.00. | | | |
| Selection procedure timeline | Oral examination: <u>15/09/2023</u> , 10 a.m . | | | |
| Sito web in cui saranno pubblicate le informazioni sull'esito del progetto, | Sito web del Dipartimento di Matematica e Fisica "Ennio De Giorgi": | | | |
| valutazione dei titoli ed ammissione al colloquio | Avvisi - Dipartimento di Matematica e Fisica - Università del Salento (unisalento.it) | | | |
| Website of the Department for informations of the ranking of admitted candidates to the interview | Website of Department of Mathematics and Physics "Ennio De Giorgi": | | | |
| | Avvisi - Dipartimento di Matematica e Fisica - Università del Salento (unisalento.it) | | | |
| Sito web di Ateneo in cui reperire il bando di ammissione al concorso, il decreto di nomina Commissione e le graduatorie definitive della selezione approvate con Decreto rettorale | <u>www.unisalento.it</u> – sezione Bandi e concorsi – concorsi – Ricerca – Bandi per dottorati di ricerca | | | |
| University website | <u>www.unisalento.it</u> – section "Bandi e concorsi – concorsi – Ricerca – Bandi per dottorati di ricerca" | | | |
| Responsabile amministrativo del procedimento di selezione | Dott. Andrea Pasquino tel. 0832/299041 – email: andrea.pasquino@unisalento.it | | | |
| Administrative person responsible for the selection procedures | master.dottorati@unisalento.it | | | |