

The University of Pisa announces public selection procedures for the award of 1 postdoctoral position in accordance with Article 22 bis of Law 240/2010 as set out in Annex A) to this call, in which the information sheets indicating the reference structure, the specific responsibility within the position and the functions to be performed, as well as the scientific disciplinary area and information on the interview, are provided.

Deadline for submitting the application: 13th may 2026 at 1 pm

Contract duration: 12 months

Annual administrative gross amount: € 41.500,00

Admission requirements:

- A PhD or medical specialisation degree. Candidates who fail to meet this requirement will lose the right to be awarded the postdoctoral position.

Documents to be attached:

The application must include:

a) A comprehensive scientific-professional curriculum containing all the necessary elements for assessing prior activities and any relevant work experiences, in connection with the content of the position under consideration (specifically indicating: date/duration, place of completion, etc.);

b) For individuals with a foreign doctoral degree, an equivalence decree or determination; if the candidate already holds one, a copy of the foreign doctoral degree or a suitable certification issued by the foreign institution, confirming the components, duration, and activities of the doctoral programme undertaken to achieve the doctoral degree. Documents issued in a foreign language other than French, English, German and Spanish, must be accompanied by a certified Italian translation that conforms with the original text, drawn up by the competent diplomatic or consular representation, or by an official translator.

c) Additional documents that the candidate deems useful for the selection purposes;

d) Publications that the candidate considers relevant for the selection, considering the maximum number set for the selection, as indicated in Annex A), with a list signed by the candidate;

e) Photocopies of the tax code and a current valid identification document.

Candidates must submit the publications they intend to present exclusively in PDF format through the dedicated section of the online procedure.

Each publication shall not exceed 30 megabytes.

Publications not enclosed with the application will not be considered by the Selection Board. Lists with links to texts are not allowed as a replacement for publications.

Applications

Applications must be submitted online only, using the following link: <https://pica.cineca.it/unipi/> or shall be invalid. An e-mail inbox is required to login and complete the application.

Candidates can login into PICA platform using the digital identifier SPID (Sistema Pubblico d'Identità Digitale - Public Digital Identity System) or Carta d'Identità Elettronica (CIE), selecting the University of Pisa among the available Institutions.

If candidates do not have SPID, they can request it in accordance with the procedures set forth on the website www.spid.gov.it or www.cartaidentita.interno.gov.it.

Candidates can also login with the credentials issued directly by PICA platform (please note: in order to apply online, the system requires an e-mail inbox for self-registration), with their LOGINMIUR, REPRISE or REFEREES account.

Applicants must provide all the required data and upload all documents in PDF format.

The system allows saving an application draft within the application deadline, recording the online application's date and sending a receipt with an automatic reply. After the deadline, the system will not allow login or application submission.

Each application will be assigned a unique identification number to be referred to in all subsequent communications, along with the selection code provided by the application form.

Under penalty of exclusion, the application shall be valid only if including all the required data, the copy of a valid ID and:

- if submitted by accessing the system without the digital identifier SPID/CIE, the applicant's signature is mandatory;
- If submitted by accessing the system with digital identifier SPID/CIE, the application will be automatically processed by the system and the applicant's signature is not required.

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

The communication must be edited in PDF format, signed and forwarded to the Rector of the University of Pisa by the Italian certified e-mail system address (P.E.C. Posta Elettronica Certificata): protocollo@pec.unipi.it or emailed to concorsi_incarichi@unipi.it , within the application's submission deadline.

An applicant's valid identification document must be attached.

For further information on application submission, please refer to concorsi_incarichi@unipi.it .

For technical problems support only, please click on the bottom link available at <https://pica.cineca.it/unipi>.

Selection procedure:

For the selection under Annex A) the Director of the Department appoints a Selection Board consisting of the head of the position and two other members.

Candidates are assessed comparatively on the basis of the following elements:

- a) Relevance and significance of the activities previously carried out, as well as any work experience, in relation to the contents of the position to the selection, in addition to documented qualifications (such as, for example, degree grade, postgraduate diplomas, any contracts, scholarships, conference presentations, and other documented qualifications);
- b) Quality, originality and innovativeness of the attached publications, as well as their relevance to the position under consideration;
- c) An interview aimed at assessing the knowledge of the basic subjects of the scientific disciplinary sector to which the subject of the position belongs, the suitability for carrying out the activity under the position, as well as the evaluation of knowledge of the English language and/or other languages relevant to the research (as reported in Annex A). During the interview, the Selection Board also assesses the knowledge of the Italian language for foreign candidates.

The Selection Board has 100 points available for the comparative evaluation of the candidates: 60 points can be allocated for the criteria mentioned above under a) and b), and 40 points for the interview.

The Selection Board may stipulate a minimum score below which eligibility cannot be awarded.

Candidates are summoned for the interview on the day and time specified in the Annex A) for the procedure.

Failure to attend an interview by a candidate is considered an explicit indication of their intention to withdraw from the selection process.

Applicants for this selection are required to consult the University website at <https://bandi.unipi.it/public/Bandi?type=IPDOC> (on the selection procedure page) during the two days preceding the date set for the interview.

On the University website (<https://bandi.unipi.it/public/Bandi?type=IPDOC>), in the section dedicated to the procedure, the following will be published:

- **Assessment scores for criteria a) and b);**
- **The list of candidates admitted to the interview;**
- **Practical instructions for carrying out the interview and/or any details should the interview be rescheduled;**
- **The procedure approval decree and the merit ranking that takes into account the scores achieved by the candidates.**

Please note that the English version is provided for courtesy and information purposes only. It cannot be legally used in the event of a dispute or a claim arising from the interpretation of this translation and concerning the contents, a possible uncertainty contradiction, or discrepancy. Should this occur, the Italian version of the call should prevail as the sole legally binding text. For the full Italian version see: <https://bandi.unipi.it/public/Bandi?type=IPDOC> (on the selection procedure page).

Selection code - post-doc_inf2026_3

Department of Computer Science

**GSD 01/INFO-01 Informatics
SSD INFO-01/A Informatics**

**Project XAI_2019
CUP I54I19001610006**

**Supervisor of the appointee's activities:
Prof. Dino Pedreschi**

Title of the activities covered by the appointment:

From Local to Global: Multi-scale Explanations of Machine Learning Models

Activities to be carried out (covered by the appointment):

The research activity, designed as an evolution and consolidation of the results from the ERC XAI project, aims to bridge the current dichotomy between local and global explanations in "black-box" Machine Learning models. The primary objective is to identify intermediate (meso-level) explanation forms capable of combining the precision of local explanations with the synthesis capabilities of global ones. While local explanations focus on the classification of individual instances and global explanations attempt to describe the model's logic in its entirety, intermediate forms aim to identify recurring behavioral patterns within specific data subpopulations. This approach promises greater stability compared to local explanations (reducing the risk of explanation overfitting) and superior fidelity compared to global explanations (avoiding excessive simplification or underfitting). The research will encompass:

- The theoretical formalization of intermediate explanations.
- The development of algorithms for their generation, utilizing both post-hoc techniques and interpretable-by-design approaches.
- The definition of metrics and protocols for analyzing the quality and robustness of the resulting explanations.

Specific responsibility relating to the activities of the appointment and functions to be performed:

The researcher will be scientifically and technically responsible for the design, implementation, and validation of innovative methodologies for the multi-level explanation of complex Machine Learning models. Specifically, their duties will include:

- **Methodological Development:** Designing solutions based on advanced learning techniques, integrating neuro-symbolic, rule-based, or evolutionary computation approaches to optimize the trade-off between predictive performance and interpretability.
- **Software Implementation:** Designing and developing software libraries and visualization tools for the extraction and utilization of the identified interpretable models.
- **Experimental Validation:** Testing developed methodologies on real-world datasets and complex case studies to ensure the transferability of results.
- **Responsible AI:** Cross-cutting integration of Trustworthy AI pillars into research activities, with particular focus on fairness, privacy, robustness, and algorithmic scalability.
- **Dissemination and Collaboration:** Contributing to the research group's scientific output through publications in high-profile international journals and conferences (e.g., NeurIPS, ICML, AAAI, AIJ) and actively collaborating on the definition of the group's future research roadmaps.

Maximum number of publications that candidates may submit, including the doctoral thesis, if submitted: 5

**Language skills:
English language**

Date, time and mode of the interview:

may 22, 2026 at 11 am in presence at the department of Computer Science - Largo B. Pontecorvo, 3 - Pisa

The interview will be conducted in Italian