

PUBLIC SELECTION, BASED ON QUALIFICATIONS AND INTERVIEW, FOR THE AWARDING OF NO. 1 RESEARCH SCHOLARSHIPS AS PART OF THE PROJECT ENTITLED "IDENTIFYING THE HOST GALAXY OF LISA MASSIVE BLACK HOLE BINARY EVENTS", FOR THE NEEDS OF THE DEPARTMENT OF PHYSICS "GIUSEPPE OCCHIALINI" OF THIS UNIVERSITY
Code 22B108

THE RECTOR

Having regard to Law no. 240 of 30 December 2010;

Having regard to the Statute of the Università degli Studi di Milano-Bicocca issued by Rector's Decree no. 0010332/15 of 3 March 2015 and subsequent amendments and integrations and in particular art. 44;

Having regard to the Regulation for the establishment and awarding of scholarships, issued by Rector's Decree no. 2383/2019, prot. 0035447/19 of 6 May 2019;

Having regard to the Regulation of the official notice board of this University, issued by Rector's Decree no. 14405 of 1 June 2006, guaranteeing the legal publication of University documents;

Whereas the Council of the Department of Physics "Giuseppe Occhialini" in the meeting of 04/04/2022 decided to award no. 1 research scholarships as part of the project entitled "Identifying the host galaxy of LISA massive black hole binary events", for the following academic discipline Physical sciences (SDS FIS/05);

Whereas the Head of the Staff Area certifies the regularity and legitimacy of this measure;

DECREES

For the reasons indicated in the preamble to this provision and which are deemed to be fully reported herein:

Article 1

The following selection procedure, based on qualifications and interview, is called for the awarding of no. 1 research scholarships for the performance of activities of particular and specific relevance as part of the project referred to in the preamble for the needs of the Department of Physics "Giuseppe Occhialini", under the guidance of the Scientific Project Head, Prof.ssa Monica Colpi, concerning the following activities and objectives to be achieved:

- in the next decade, the Laser Interferometer Space Antennaa (LISA) will detect gravitational wave (GW) signals from coalescing massive black hole binaries (MBHBs). These sources are key targets for multimessenger studies aimed at discovering the triggering of accretion and the launch of jet during a merger. Detecting GWs and X-rays contemporarily is of paramount importance. The candidate is expected to develop tools that combine LISA sky localization capabilities of a MBHB merger with galaxy maps in order to identify the "true galaxy host" in areas of the sky extracted from a mock universe, which we refer to as L-Galaxies.

Article 2

The scholarship will have a duration of no. 4 months, with effect from the 1st or 15th day of the month following the date of the awarding decree and may be renewed several times within a total duration of no more than three years, subject to authorisation by the Council of the Department upon proposal of the Scientific Director and/or the fund holder.

The winner of a research scholarship may be awarded other scholarships of the same type, provided that they do not overlap in time and, in any case, for a maximum total duration of no more than six years.

The payment for the entire period, is of 4.000,00 euros, subject to taxation according to the regulations in force, and it will be made monthly in arrears, according to the activity carried out.

Università degli Studi di Milano-Bicocca shall take out an adequate insurance policy for scholarship recipients against accidents and occupational diseases that may occur during the period of their presence on university premises, as well as outside, provided that their presence can be documented by written and motivated authorisation from the Scientific Director.

The costs of this insurance policy shall be borne entirely by the research scholarship recipient.

The research will be carried out at the Department of Physics "Giuseppe Occhialini" of the Università degli Studi di Milano-Bicocca and in other places indicated by the Scientific Responsible for carrying out the activities.

The assignment will be charged to the Progetto ID 2017-NAZ-0418/PER "LISA-PHASE A: gravitational waves from massive black holes in the gravitational universe - Progetto PRIN 2017" - conto CA.C.01.01.02.06 - COFOG MP.M1.P1.01.4 - CUP H45J17000580006, Resp. Prof.ssa Monica Colpi, Analytical Unit Department of Physics "Giuseppe Occhialini".

Article 3

Applicants must meet the following requirements:

- University degree: Master's Degree in Sciences of the universe, or equivalent foreign qualification, or equivalent qualification by law provision.

The above requirements must be possessed by the date of the deadline for submitting applications.
Applicants are admitted to the selection process subject to conditions.

The following points will be awarded:

- up to 40 points: graduation grade and thesis or PhD thesis in Physics / Astrophysics;
- up to 20 points: publications, communications at conferences and other duly documented qualifications.

The interview will be based on subjects useful to evaluate relevance to the required profile (up to 40 points):

- knowledge in Astrophysics and Gravitational Physics with particular attention to the emission processes from active galactic nuclei, to the formation of galaxies in a cosmological context, to the sources of gravitational waves, to the knowledge of data analysis methods associated with "mock universe" models.

For applicants living abroad, the interview may take place online. Upon a justified request, the possibility of an online interview is also extended to applicants resident in Italy.

The following applicants are not eligible for selection:

- those who have a relationship or a kinship, up to and including the IV degree, with a professor of the recruiting Department, the Rector, the Director General or a member of the Board of Directors of the University;
- those who are excluded from the enjoyment of civil and political rights, and those who have been dismissed or disqualified from employment with a Public Administration for persistent inadequate performance, or who have been declared debarred from another State job, pursuant to Article 127 letter d) of the Decree of the President of the Republic No. 3 of 10 January 1957;
- those who have been dismissed for having obtained their employment by producing false documents or by fraudulent means;
- recipients of convictions that have become final, including convictions following plea bargaining, or irrevocable criminal sentences for offences against the Public Administration.

In the event of ongoing criminal proceedings for offences against the Public Administration, the University reserves the right to assess admission to the selection process with reference to the profile requested.

The scholarship may not be combined with scholarships pursuant to Law 398/89 or with other scholarships awarded by the State or other public or private bodies.

The research scholarship is incompatible with any permanent or fixed-term employment relationship, even part-time, without prejudice to the possibility of the research fellow being placed on unpaid leave by the employer.

The performance of research activities following the awarding of a research scholarship does not establish any type of (full-time or part-time) employment relationship or self-employment.

Article 4

The submission of the application, together with the qualifications, documents and publications considered useful for the procedure, must be made exclusively electronically, under penalty of exclusion, by accessing

the following link: <https://pica.cineca.it/unimib/22b108/>.

The applicant may register and access the platform by using the *Sistema Pubblico di Identità Digitale* (SPID – Public System of Digital Identity - security level 2), selecting the University of Milano-Bicocca. If the applicant does not have one, he/she may apply according to the procedures indicated on the website www.spid.gov.it.

Alternatively, applicants may register and log in using the credentials issued directly by the platform or authenticate themselves with their LOGINMIUR, REPRISE or REFEREES account, if available.

The online platform will necessarily require an e-mail address in order to be able to register with the system. The applicant shall enter all the data required to produce the application and attach the documents in PDF format.. It will be possible to attach a maximum of 30 publications and 30 documents for other qualifications to be evaluated.

The application form must be completed in all its parts, as indicated in the online procedure, and must include:

- a curriculum vitae with the indication of the applicant's scientific and professional activity;
- a copy of a valid identification document;
- a declaration that the applicant has/has not been convicted of a criminal offence and that he/she has/has not pending criminal proceedings against him/her; otherwise, the applicant shall specify the offence, whether the sentence has become final, whether criminal proceedings are in progress and whether accessory penalties have been imposed and which ones.

No other form of submission of applications or documentation useful for participation in the procedure is permitted.

By the deadline for submitting the application, the system allows the application to be saved in draft mode. The date of telematic submission of the application is certified by the information system by means of a receipt which will be automatically sent by e-mail.

Once the deadline for submission has expired, the system will no longer allow access and submission of the electronic form.

Each application will be assigned an identification number which, together with the selection code indicated in the online platform, must be specified for any subsequent communication.

The application must be completed and sent electronically **no later than 12 noon on 17/05/2022 (Rome time)**.

If the applicant accesses by using his/her SPID to submit the application, it will not be necessary to sign it as it will be automatically acquired by the procedure.

In case of access with the credentials issued by the platform, the submission of the application must be completed and concluded as follows:

- by digital signature, using smart cards, USB tokens or remote signatures, which allow the holder to sign generic documents by using a PC-based signature software or a web portal for Remote Signature made available by the Certifying Authority. In case of a smart card or a USB token for Digital Signature, it is possible to check its compatibility with the Digital Signature system integrated in the server system. In case of positive result, the holder can sign the application directly on the server (e.g. Con Firma – With signature);
- those who do not have compatible digital signature devices and Remote Digital Signature Holders who have access to a portal for signing generic documents, shall save the PDF file generated by the system on their PC and, without modifying it in any way, digitally sign it in CAdES format: a file with .p7m extension will be generated and shall be uploaded again on the system. Any modification made to the file, before the Digital Signature is affixed, will prevent the automatic verification of correspondence between the content of the aforesaid document and the original, and this will result in the exclusion from the selection;
- if it is not possible to use one of the above options, the applicant must save the PDF file generated by the system on his/her PC and, without modifying it in any way, print it out and affix a complete handwritten signature on the last page of the printout. This complete document must be produced in PDF format by scanning, and the file thus obtained must be uploaded to the system.

In accordance with the laws on self-certification, the University shall verify the truthfulness of the self-certifications and declarations, in accordance with T.U. 445/2000.

Submission of the application to participate in this selection constitutes full acceptance of the conditions set out therein, as well as knowledge and acceptance of the rules laid down in the regulation cited in the preamble.

Article 5

Applications will be examined by the Selection Board, proposed by the Council of the recruiting Department, appointed by the Rector of Università degli Studi di Milano-Bicocca, in accordance with the regulations in force, and it will be made up of at least three experts in the field.

The Selection Board, for the purposes of this selection procedure, is made up as follows:

- Prof.ssa Monica Colpi (Presidente);
- Prof. Alberto Sesana (Componente);
- Prof. Bruno Giacomazzo (Componente con funzioni di Segretario);
- Prof. Massimo Dotti (Supplente);
- Dott. David Izquierdo (Supplente).

The Selection Board may make use of telematic tools for collective work.

The interview, which will be held exclusively online, unless otherwise communicated by e-mail to the applicants and reported on the page of the website where this selection notice can be viewed, will take place on **19/05/2022** at **09:00** (Rome Time). When submitting their application, candidates shall enter their e-mail/telematic contact (Skype, Cisco Webex Meetings, Google Hangouts or Google Meet) for the configuration of the online interview.

The selection is considered successful if the candidate obtains an overall mark (qualifications and interview) of not less than 60 points.

Once the selection procedure has been completed, the Selection Board draws up a report and sends it to the competent office of central administration of this university.

Once the procedure has been verified, the ranking list is approved by Rector's decree. In the event of a tied score, the candidate with the youngest age bracket takes precedence.

The ranking list will be published on the notice board of Università degli Studi di Milano-Bicocca, Piazza dell'Ateneo Nuovo 1, Milan.

Article 6

The University will inform the winner of the assignment of the research scholarship.

Within 15 days after receiving a notification, the winner, shall send the Rector a declaration of acceptance of the scholarship, under penalty of forfeiture.

If the winner does not send the declaration of acceptance of the scholarship within the deadline indicated above, or if, despite having accepted the scholarship, he/she does not demonstrate that he/she has begun any research activity by the date indicated in the letter of awarding, the applicant/applicants immediately following in the ranking shall take over. The same applies in the event of withdrawal within 60 days of the date of the decree awarding the scholarship.

Delays due to serious health reasons or cases of force majeure, duly substantiated, may be admitted, provided that they are not incompatible with the time required to carry out the research giving rise to the scholarship. In this case, the payment of the scholarship will be made from the date of the actual start of the research activity, without prejudice to the duration of the scholarship itself.

A scholarship recipient who, after having begun the planned research activity, does not continue it, without any justification, regularly and uninterruptedly for the entire duration of the scholarship, or who is responsible for serious and repeated failures to comply, may be declared ineligible for further use of the scholarship.

The forfeiture measure will be adopted by the Rector, on the motivated proposal of the Scientific Director.

At the end of the duration of the scholarship, the research scholarship recipient shall submit a detailed report on the activity carried out to the Department, with the approval of the Scientific Director and the owner of the fund on which the scholarship is based, in case they are separate persons.

If the research scholarship recipient intends to withdraw from the research activity, he/she shall inform the Rector, the Scientific Coordinator, and the Director of the recruiting Department at least 15 days in advance.

Article 7

For all matters not covered by this selection notice, reference is made to the provisions of the law on public competitions and to the regulations for the establishment and awarding of research scholarships referred to in the preamble.

Article 8

In accordance with the provisions of art. 5 of law no. 241 of 7 August 1990, the person responsible for the proceeding of this notice is Mr. Alessandro Cava, Head of the Recruitment Sector, Piazza dell'Ateneo Nuovo 1, 20126 Milano.

Article 9

Pursuant to Legislative Decree no. 196 of 30 June 2003 and EU Regulation 679/2016, the processing of personal data provided or otherwise acquired by the University is aimed solely at carrying out this selection and it will be carried out by authorised personnel, using procedures, including IT procedures, in the manner and within the limits necessary to pursue the aforementioned purposes. The data will be stored in accordance with the rules on the conservation of administrative documentation. The data controller is Università di Milano-Bicocca in the person of the Rector, Legal Representative, with registered office in Piazza dell'Ateneo Nuovo, 1 – Milano

Article 10

The present decree will be published on the notice board of the Università degli Studi di Milano-Bicocca, Piazza dell'Ateneo Nuovo, 1 Ed. U6 - 20126 Milano for at least 15 days and will also be made available on the website at the following link: <https://www.unimib.it/node/983>.

THE RECTOR

Giovanna Iannantuoni
(Digitally signed ex art. 24, D.Lgs 82/05)

UOR (Responsible Organizational Unit) Staff Area – Executive: Maria Bramanti

Person in Charge of the procedure: Alessandro Cava

Document processed by: Recruitment Sector – Recruitment Office – Raffaele Maccarone

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