



POLITECNICO
MILANO 1863

ARUO - SGPD

Index No. 10518

Recorded on 14/10/2022

Prot. no. 236731 Pos. VII/1

Procedure code 2022_RTDA_DAER_5

UOR: Academic Staff Career Unit

HAVING SEEN Law no. 22/4/1987, no. 158, "Conversion into law, with amendments, of Decree Law 02 March 1987, no. 57, containing urgent provisions for university researchers and for the implementation of art. 29, paragraph 2, of Law 29 January 1986, no. 23, on replacements of school non-professors";

HAVING SEEN Law no. 9/5/1989, no. 168 and art. 6, according to which Universities have regulatory autonomy;

HAVING SEEN Law no. 24/12/1993, no. 537, "Public finance corrective actions";

HAVING SEEN Presidential Decree 28/12/2000, no. 445 Consolidated laws and regulations on administrative documentation and subsequent amendments;

HAVING SEEN Legislative Decree no. 196 of 2003 "Code on the protection of personal data", and subsequent amendments and additions;

HAVING SEEN EU Regulation no. 679/2016 on the protection of individuals during personal data processing and its free movement;

HAVING SEEN Legislative Decree 11 April 2006, no. 198 - Code on equal opportunities for women and men, under art. 6 of Law of 28 November 2005, no. 246", as amended;

HAVING SEEN Law no. 30/12/2010, no. 240 and art. 24;

HAVING SEEN MINISTERIAL DECREE 24/5/2011, no. 242 concerning "Criteria for the evaluation of teaching and research activities carried out by contract holders referred to in art. 24, paragraph 3, letter a referred to in art. 24 of Law 240/2010;

HAVING SEEN MINISTERIAL DECREE 25/5/2011, no. 243, relating to "Recognised national and international criteria for the preliminary evaluation of applicants under the contracts referred to in art. 24, paragraph 2, letter c) of Law 240/2010";

HAVING SEEN MINISTERIAL DECREE 30/10/2015, no. 855 "Redefinition of the Groups of the Academic Recruitment Fields and of the Academic Recruitment Fields" as amended;

HAVING SEEN the Politecnico di Milano Statute adopted under Rectoral Decree no. 623/AG on 23/2/2012, published in the Official Gazette of 2/3/2012, no. 52;

HAVING SEEN Rectoral Decree no. 41/AG of 17 May 2005 - Regulation concerning the contribution for participation in in-house and public calls organised by Politecnico di Milano;

HAVING SEEN Rectoral Decree no. 117/AG of 11 January 2012, with which the Regulations governing the procedures for the recruitment of Untenured Researchers under art. 24 of Law 30/12/2010 no. 240 as amended by Rectoral Decrees no. 2472 of 02/10/2012, 728 of 05/03/2014, 3451 of 13/10/2014, 1465 of 04/04/2016, 3396 of 29/07/2016, 3325 of 15/06/2017, 9325 of 20/12/2018, 3981 of 29/05/2019, 6974 of 30/09/2019, 2665 of 01/04/2020 and further amended by Rectoral Decree no. 9234 of 23/12/2020;

HAVING SEEN the resolution of the Department of Aerospace Science and Technology on 21.09.2022 approving the proposal for a public selection notice for 1 Untenured Researcher (Junior) position for the 09/A1 - AERONAUTICAL AND AEROSPACE ENGINEERING AND NAVAL ARCHITECTURE sector;

Having verified the budget availability,

DECREES

Art. 1 - Call type

A public selection is called for the recruitment of **1 Untenured Researcher under art. 24, paragraph 3, letter a) of Law 31/12/2010, no. 240, (Junior) with fixed-term FULL TIME commitment** of a three-year duration which can be extended once for two years.

Department: **Department of Aerospace Science and Technology**

Location: **Department of Aerospace Science and Technology**

Academic Recruitment Field: **09/A1 - AERONAUTICAL AND AEROSPACE ENGINEERING AND NAVAL ARCHITECTURE**

Academic Discipline: **ING-IND/07 - AEROSPACE PROPULSION**

Contract duration: **Three years**

Commitment: **FULL TIME**

Foreign language required: **ENGLISH**

Maximum number of publications: **12**

Art. 2 - Admission requirements

Italian or foreign applicants, who have a PhD or equivalent qualification, obtained in Italy or abroad are admitted to selection process.

Since participation in the selection process is not nationality-specific, foreign citizens must possess an equivalent qualification based on international agreements and current legislation. This equivalence must result from appropriate certification.

Candidates who hold a position of "Professore di I Fascia" (Italian Full Professor), "Professore di II Fascia" (Italian Associate Professor) or "Ricercatore a Tempo Indeterminato" (Researchers on an Italian permanent contract), cannot be admitted to the selection, even if they have ceased their service.

Those who have had Research fellow and Untenured Researcher contracts under articles 22 and 24 of Law 240/2010 at Politecnico di Milano or other state, non-state or telematic Italian universities, and the bodies referred to in paragraph 1 of art. 22 of Law 240/2010 for a period which exceeds 12 years consecutively or non-consecutively, once added to the call's contract duration. Periods spent on maternity or health leave under current legislation are not taken into account for relationship calculation purposes.

Those who have a familial or kinship relationship, up to and including the IV degree, with a professor of the Department of Aerospace Science and Technology, the Rector, Director General or a member of the Board of Governors may not participate in the selection procedure.

To be admitted to the selection process, requirements must be met on the deadline date for submitting

applications for admission.

Art. 3 - Admission application and submission deadline

To participate in the selection process, the applicant must complete and send the **application for admission, and the related signed summary, within the peremptory deadline of 30 (thirty) days, under penalty of exclusion, starting from the day following the publication date of this notice in the Official Gazette.** This is done by accessing the **Politecnico di Milano online Services - Competitions and selections - Competitions/selections for entrusting of assignments/positions - Untenured Researcher posts - type A (RTDA "Junior")**, attaching anything the procedure requires. **Documentation using different methods from those required in the call cannot be evaluated.**

Applicants whose applications are received after the deadline will be automatically excluded from selection.

If the deadline falls on a non-working day, it is extended to the next working day.

Applicants who want to participate in several selection procedures must submit separate and complete applications for each.

Applicants are admitted to the selection subject to confirmation.

The Procedure Manager may exclude applicants from the selection for the following reasons:

- the admission application was submitted after the peremptory deadline of 30 days after the day following the publication date in the Official Gazette;
- failure to sign the application form summary;
- lack of a professional scientific Curriculum Vitae;
- lack of the required attachments;
- failure to pay the participation fee by the deadline for application submission;
- failure to meet the requirements set out in article 2 of the call notice;
- any other case of violation of the requirements contained in the call notice.

If the reasons for exclusion are ascertained after the selection process has been completed, the procedure Manager shall forfeit all rights resulting from participation. Applicants who make false statements in the selection admission application form or in statements made under Presidential Decree 445/2000 shall have their applications voided.

Applicants must pay by the deadline for submitting the application, and under penalty of exclusion from the selection procedure, a contribution fee of **25.82 Euro**, without the right to a refund in the event of non-participation for any reason, through the unified system for electronic payments to the public administration **PagoPA**, following the instructions of the online application submission procedure.

Alternatively, **only for those who are unable to proceed with the aforementioned payment system** (in particular, in case of payments made abroad if the candidate is not a credit card holder, or in case the credit card is not accepted by the system), it is possible to proceed through a bank transfer on the Current Account registered to Politecnico di Milano - P.zza Leonardo da Vinci, 32 - 20133 Milan, with the following bank details:

IBAN: IT34T0569601620000001600X69 SWIFT: POSOIT22

Reason for payment: " (...) **1 Untenured Researcher (Junior) position at Department DAER procedure code: 2022_RTDA_DAER_5**".

Applicants with disabilities may request the necessary aid to do the interview, under Law no. 104/92.

The applicant must indicate in their application an e-mail address, or Italian certified e-mail address (PEC),

to be elected as the sole address for the procedure.

The University must be promptly notified of any changes.

The Administration is not responsible for any inaccurate information provided by the applicant or for any postal issues.

The applicant must enclose the following with the application:

- professional scientific Curriculum Vitae;
- as a possible supplement to the curriculum, any additional document deemed useful for the purpose of assessing qualifications;
- **maximum number** of publications **12** (any further publications will not be subject to evaluation);
- photocopy of a valid identification document: identity card, passport or driving licence;
- participation fee payment receipt.

For selection purposes:

- The PhD or equivalent qualification, obtained in Italy is declared directly in the application form;
- The PhD or equivalent qualification, obtained abroad must be produced in original or adequately certified.

To guarantee the widest possible participation in the procedure, applicants must attach a photocopy of these qualifications accompanied by a translation into Italian or English. Should they be selected, they must submit their qualifications in original or adequately certified no later than the contract stipulation date.

Non-EU citizens, legally residing in Italy, must attach a copy of a valid residence permit or EU long-term residence permit (residence card for foreign citizens), legally issued by the relevant Administration or its request receipt. If the applicant is selected, an original of the residence permit or the EU long-term residence permit (residence card for foreign citizens) or their request receipt must be submitted to the Visiting Professor Welcome Office no later than the contract stipulation date. Any failure to submit the document involves the automatic forfeiture of the right to enter into the contract.

If citizens of non-European Union countries residing in their country of origin at the time of participation in the selection process are selected, they must necessarily submit the entry visa to the Visiting Professor Welcome Office. The visa is the result of the prefecture issuing the authorisation by the presumed activity start date. Failure to submit the document will make it impossible to start the activity.

The Administration reserves the right to carry out random checks on the attachments to the application form, and statement truthfulness.

Referenced to documents already submitted for other selection procedures at this Politecnico are forbidden.

Art. 4 - Publications

Only publications or texts accepted for publication under current regulations may be evaluated, and essays included in collective works and articles published in hard copy or digital magazines with the exclusion of internal notes or departmental reports. The doctoral thesis or equivalent qualifications are taken into consideration even without the above conditions.

Publications must be produced in the original language and translated into one of the following languages: Italian, French, English, German and Spanish, if written in a language other than those previously indicated.

The administration reserves the right to check the statements on submitted publications.

Art. 5 - Selection Committee

The Selection Committee is composed of three full and associate professors, or equivalent foreign status, under Ministerial Decree of 01/09/2016, no. 662, of the Academic Recruitment Field covered by the notice, appointed by the relevant Department Board. The Committee is composed of a majority of full and associate professors, or equivalent if from other national or international universities.

The appointment is made by Rectoral decree and published in the official register and the University's website.

The Committee must complete its work within four months from the appointment decree issue. An extension of three months may be granted by the Rector on the President's reasoned request.

Applicants may lodge an objection to any Committee members if the conditions in art. 51 of the Code of Civil Procedure are met. Objections must be lodged with the Rector within 30 days of the publication in the Official Register and the University's website of the decree appointing the committee. After this deadline, and the commission has taken office, no objection may be made. If the circumstance of the objection is prior to the date of the Committee taking office, the deadline starts from its onset. The objection's rejection cannot be a reason for a subsequent recusal.

Art. 6 - Selection methods

The selection is made by evaluating the applicants with a reasoned analytical judgement on their qualifications, curriculum vitae and scientific production, including the doctoral thesis, according to national and international criteria and parameters, identified by Ministerial Decree 25/5/2011, no. 243.

The Committee may use telematic tools for collective work and may carry out remote sessions.

The public discussion of qualifications and scientific production and the foreign language assessment can be carried out by teleconference meeting.

The Selection Committee at its first meeting establishes the criteria and parameters by which the preliminary and subsequent evaluation of qualifications and scientific production is carried out.

During the same meeting, the Committee determines the maximum and minimum score, below which the applicant is ineligible.

The evaluation criteria and parameters are made public at least seven days before the preliminary qualifications and scientific production evaluation and are published on the University website.

Following the preliminary evaluation, the most comparatively deserving applicants - between 10 and 20 per cent and not less than six, shall be admitted to the public discussion of qualifications and scientific production with the Committee.

All applicants are admitted to the discussion if the number is equal to or less than six.

The Committee discusses the qualifications and scientific production with the applicants. This applicant may choose to hold the discussion in Italian or English. This is not subject to evaluation but awards scores on qualifications and scientific production.

During the discussion of qualifications and scientific production, the Committee will carry out an oral test to verify the applicants' knowledge of the ENGLISH language.

After the discussion, a score will be awarded to qualifications and each of the publications submitted by the applicants.

Based on the criteria and parameters established in the preliminary meeting, the Committee will draw up a merit ranking taking into account the scores achieved in the evaluation of qualifications and scientific production of each applicant.

If there is an equal score, preference will be given to the younger applicant.

The date, time and **method** of conducting the public discussion of qualifications and scientific production and the foreign language assessment are published on the University website and notified to each candidate, with at least 20 days' notice, through the e-mail or Italian certified e-mail address (PEC), elected as exclusive address for the purposes of the procedure, as indicated in the application form.

Candidates admitted to the public discussion, if the latter will be carried out by teleconference meeting, will receive an invitation containing the access link through their e-mail address, prior to the discussion. The link will also be published on the University website, in order to guarantee due publicity.

The admitted candidates must guarantee that the workstation from which they undertake the discussion is equipped with a webcam, indispensable for the recognition of the candidate, as well as with a microphone and headphones / audio speakers.

At the beginning of the online interview, candidates must present a valid identity document to the Selection Committee, preferably corresponding to the one attached to the application. The Administration assumes no responsibility for the dispersion of communications, caused by any incorrect indication of the delivery address by the candidate or failure of/late communication of any change of address indicated in the application, nor for any postal or telegraphic mistake or any mistake attributable to third parties, either caused by chance or force majeure.

The event of a candidate failure to attend the public discussion, on the date and time set and with the method established in the communication, even if due to force majeure, will be considered as a waiver of participation in the selection.

After procedure completion, the Committee will deliver the selection documents to the procedure Manager, consisting of the minutes of individual meetings and a final report.

Art. 7 - Documentation compliance verification.

Within 60 days from the delivery of the documentation drawn up by the Committee, the Director General shall verify documentation formal compliance with a decree.

If formal defects are found, the Director General will send the documentation back to the Commission for changes showing the reasons and setting the deadline.

The decree approving the documentation and final report are published on the University's website and sent to the relevant institute that requested the call.

Publication on the website is the equivalent of a legal notice to applicants.

The deadlines for lodging any appeals begin from the decree's publication date.

The relevant Department Board shall formulate the proposal for the call of the applicant who is first in the ranking with an absolute majority of full and associate professors' favourable votes or decides not to call, giving appropriate reasons for the decision.

Art. 8 - Documents - contract stipulation

The selection winner is invited to sign the individual employment contract, and submit the documentation required under current legislation for the establishment of a fixed-term employment relationship. This is done within 30 days from the Board of Governors call proposal resolution.

The contract must be signed within 30 days of receipt of the communication.

The contract covers:

- the employment relationship start and end date;
- the services required;
- the remuneration.

The probationary period is three months and the Head of the Department is responsible for the evaluation. The probationary period is suspended if there is an absence due to illness. In this case the employee has the right to keep the position for a maximum of six months, after which the relationship is terminated. After the probationary period without the employment relationship having been terminated by the parties, the contract holder is confirmed and granted seniority from the day of recruitment. If the contract is terminated, remuneration is paid until the last day of service. Under current legislation, non-EU citizens may use substitute declarations, limited to cases where there is a need to prove status, facts and personal qualities which can be certified or attested by Italian public or private entities.

Art. 9 - Contract duration

The contract has a three-year duration and may be extended only once for two years, after a positive evaluation of the research and teaching activities carried out, based on methods, criteria and parameters defined by Ministerial Decree 24/05/2011, no. 242.

Art. 10 - Tasks, employment relationship method and hourly commitment

Research Programme: Development of hybrid CPU-GPU Paradigms to Accelerate CFD Simulations of Aerospace Propulsion Systems

The activity will be focused on the development and the validation of hybrid algorithms to accelerate reactive flow calculations. Code development will be carried out in the form of object oriented C++ dynamic libraries for HPC architectures. The development of advanced algorithms for domain decomposition and for big data management on leadership class machines will be part of the work. Advantages of the developed methodology will be demonstrated on validation test cases typical of the Aeronautical and Space sector. The research activity is compliant with the Programma Nazionale per la Ricerca or PNR 'Centro Nazionale HPC, Big Data e Quantum Computing, spoke MULTISCALE MODELING & ENGINEERING APPLICATIONS.

The annual commitment for teaching, supplementary teaching and student services is 350 hours.

The contract holder is required to carry out teaching according to the methods defined during teaching planning by the Department requesting the contract, under Regulations for the teaching commitment of Politecnico di Milano professors and researchers under art. 6 of Law 30/12/2010 no. 240.

Art. 11 - Employment termination

Employment termination is when the term expires or the parties withdraw and any other reason under current legislation.

During the first three months the contracting parties may terminate the contract, without notice or

compensation in lieu of notice. Withdrawal shall be effective from the moment the other party has been informed.

After this period and until the expiry of the term, contract withdrawal may take place if, under art. 2119 of the Civil Code, there is a reason which makes the relationship continuation impossible. If there is a withdrawal, the contract holder is required to give at least 30 days' notice. The notice period begins on the first or 16th day of each month. If there is a failure to send the notice, the administration can retain an amount equal to the remuneration for the unworked notice period.

Art. 12 - Incompatibility and further assignments

The contract referred to in this call notice is incompatible with:

- any other employment relationship, including part-time or fixed-term employment, with public and private entities;
- entitlement to research grants at other Universities;
- doctoral and post-doctoral scholarships and scholarships or grants awarded by third parties, other than scholarships which support travel to other national or international institutes for joint research activities.

The contract holder is allowed to carry out further teaching assignments, in addition to those in art. 10 with the methods under University General Regulations.

The provisions contained in the Regulations governing assignments outside the University for professors and researchers apply to contract holders.

The contract referred to in this call notice does not give rise to any rights to access university positions.

The performance of the contract referred to in this call notice is an advantage in selection procedures for public administrations.

Art. 13 - Remuneration, tax, social security and insurance conditions

The contract holder remuneration is equal to the initial remuneration of the "Ricercatore a Tempo Indeterminato" (Researcher on an Italian permanent contract) for FULL TIME.

Gross annual remuneration is not subject to indexing or revaluation.

The employment relationship established between Politecnico di Milano and the contract holder is governed by relevant regulations, including tax, social security and pension conditions for employee income.

The University provides insurance coverage for accident and civil liability risks.

The contract holder is entitled to what is under Legislative Decree no. 26/03/2001, no. 151 on the protection and support of maternity and paternity, by Law no. 05/02/1992, no. 104 for the assistance, social integration and rights of persons with disabilities, articles 37, 40 and 68 of Presidential Decree 10/01/1957, no. 3 and subsequent amendments, on extraordinary and sick leave. Sick leave cannot be extended for more than 12 months.

Art. 14 - Intellectual property

The possible implementation of an innovation, which may be patented by the contract holder in the performance of their duties, is subject to current and University General Regulations and any relevant contractual clauses.

Art. 15 - Personal data processing

Under EU Regulation no. 679/2016, applicants are informed that the processing of their personal data will take place, on paper or electronically, for the sole purposes of this procedure and establishment and management of any employment relationship.

The processing will be carried out by the persons in charge of the procedure, the selection committee, using electronic means, in the ways and within the limits necessary to pursue the above purposes, including any communication to third parties.

The provision of data is necessary for the assessment and verification of the participation requirements and possession of the declared qualifications. Any failure to provide data may prevent those fulfilments and, in the cases provided by the call, may result in the exclusion from the selection procedure.

Additional data may be requested from applicants for the purposes indicated above.

The data collected may be disclosed to any entitled parties under Law no. 241/1990, Legislative Decree 33/2013 as amended and supplemented.

The data will be stored, under current regulations for a period which does not exceed that necessary to achieve the purposes for which it was processed.

Applicants are granted the rights indicated in the third chapter of Regulation EU no. 679/2016, including the right to access their personal data, request its rectification, update and deletion, if incomplete, inaccurate or collected unlawfully, and oppose data processing for legitimate reasons. Further information is available on the university website www.polimi.it/privacy.

A complaint may be lodged by making a request to the Data Protection Officer, contact point: privacy@polimi.it.

The Politecnico di Milano Data Controller is the Director General delegated by the Pro-tempore Rector - contact: dirgen@polimi.it.

Data processor: The Head of HR and Organizational Development Division

Art. 16 - Procedure Manager

Under art. 5 of Law of 7 August 1990, no. 241, Eftimiadi Enrico - HR and Organizational Development Division - Academic Staff Career Unit - is appointed Manager of this call procedure - tel. 02.2399.2156 - 02.2399.2236 fax 02.2399.2287 - E-Mail: enrico.eftimiadi@polimi.it - concorsi@polimi.it.

Art. 17 - Publication

This call notice is published in the Official Gazette of the Italian Republic, on the Politecnico di Milano website, the Ministry of University and Research website and the European Union Portal.

Art. 18 - Final provisions

For anything not expressly provided under this call notice, the regulations mentioned in this decree introduction, and legislation, shall apply.

DIRECTOR GENERAL
(Eng. GRAZIANO DRAGONI)
signed by Raffaele Sorrentino

Digitally signed under CAD - Legislative Decree 82/2005 as amended and supplemented