



UNIVERSITÀ
DEGLI STUDI
DI BERGAMO

Area
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CHANCELLOR'S DECREE

Data that can be deduced from the registration in the protocol:
Repertoire Number, Protocol Number, Title,
Class File Attachments and References

Object: Public selection based on qualifications and interview for the awarding of no. 3 Early stage grants for conducting research pursuant to art. 22 of law no. 240/2010 at the Departments of University of Bergamo - Pica Code 23AR030

THE CHANCELLOR

GIVEN	Law No. 168 of 9 May 1989 laying down rules on the "Establishment of MIUR";
GIVEN	Law No. 240 of 30 December 2010 "Norms in terms of organization of universities, of academic personnel and their recruitment, as well as mandate to the Government to subsidize quality and efficiency of academic systems", in particular art. 22 on research grants;
GIVEN	the Statute of the University of Bergamo enacted with Chancellor's Decree Index No. 570/2023 of 01.08.2023;
GIVEN	the University's current Regulations for awarding grants for conducting research;
GIVEN	Ministerial Decree Prot. No. 102 of 09 March 2011, recorded at the Court of Auditors on 13 May 2011, which revalued the minimum gross annual amount of grants for conducting research;
GIVEN	Decree-Law No. 192 of 31 December 2014 "Extension of terms provided for by legislative provisions", converted, with amendments, by Law No. 11 of 27 February 2015 and, in particular, Art. 6 paragraph 2 bis which extended by two years the total duration of grants established under Art. 22 of Law No. 240/2010, taking it from four to six years;
GIVEN	the D.L. No. 36/2022, converted, with amendments, into Law no. 79/2022, which in art. 14 paragraph 6-quaterdecies establishes that "for one hundred and eighty days following the entry into force of the decree conversion law, limited to the already programmed resources on the mentioned date, or approved by the respective governing structures within the mentioned term of one hundred and eighty days , universities [...] may call for awarding procedures of research grants pursuant to article 22 of law no. 240, in the current text before the entry into force of this decree conversion law";
Referring also to:	
	<ul style="list-style-type: none"> - the University's Code of Ethics issued with Chancellor's Decree. Prot. No. 14405/I/003 of 19.7.2011 and amended with Chancellor's Decree. Rep. No. 262/2018, Prot. No. 60030/I/003 of 12.4.2018; - the University's Regulations on research integrity and ethics, enacted with Chancellor's Decree Index No. 387/2016 of 18 July 2016; - the University's Patent Regulations enacted with Chancellor's Decree Index No. 390/2016 of 19 July 2016 and amended with Chancellor's Decree Index No. 158/2018 of 26 February 2018 and with Chancellor's Decree Index No 421/2020, of 9.9.2020;
ACQUIRED	the resolutions of the Councils of the Structures involved referred to in Annex A which approved the annual research projects and resolved on the requirements for candidates' admission to the selection;
GIVEN	the resolutions of the Academic Senate and of the Board of Directors reported in Annex A which approved the research grants activation in various Departments;
ASCERTAINED	the financial backing reported in annex A;



DECREES

Article 1

Call for public selection

3 public selections are launched based on qualifications and interview for the awarding of No. 3 grants for conducting research pursuant to Art. 22 of L. No. 240/2010 with a contract under private law as specified in Annex A to this notice which constitutes an integral part thereof.

Each grant is paid to the contract holder in monthly instalments of equal amount.

The research projects are described in Annex A of this call constituting an integral part hereof.

Article 2

Requirements for admission to the selection

The selection procedure is open to **scholars in possession of a professional scientific curriculum suitable for conducting the scientific research provided for by this call, as well as of the following requirements:**

- **2nd cycle degree: Diploma di Laurea Specialistica (LS) or Laurea Magistrale (LM)** and equivalent qualifications, **or Diploma di Laurea (DL)** obtained according to the procedures preceding the entry into force of Ministerial Decree 509/1999 and following amendments and integrations and equivalent qualifications for admission to public competitions (**see the following Annex A**).
- **knowledge of one or more foreign languages (see the following Annex A).**

To establish the equivalence among **Diploma di Laurea (DL)** and **Diploma di Laurea Specialistica (LS) or Laurea Magistrale (LM)**, it is possible to refer to the following link:
<http://attiministeriali.miur.it/UserFiles/3160.pdf>

The Decrees that govern the equivalence among Italian academic qualifications for participating in public competitions are available at the following link:
<http://hubmiur.pubblica.istruzione.it/web/universita/equipollenze-titoli>

The qualifications obtained abroad must be recognised as valid in the Italian territory.

As regards qualifications obtained abroad that have not already been recognised in Italy with formal procedure pursuant to the applicable laws, the Commission is competent to assess the equivalence – as to the nature, level and subject correspondence (cycle degree) – to the qualifications required by this call, for the sole purposes of admission to the present selection.

As regards qualifications obtained abroad, required by the call for the purpose of admission to this selection, the applicant:

- in the event of qualifications already recognised as valid in the Italian territory, must indicate in the application **the details of the provision attesting the occurred recognition** pursuant to the applicable laws;
- in the event of **qualifications not yet recognised**, in order to ensure the widest participation in the selection, the candidate with a qualification not yet recognised or with the recognition procedure in progress, **must obligatorily attach to the application, under penalty of exclusion, one or more of the following documents:**
 - **a certified copy of the statement of qualification equivalence**, issued by the competent Italian diplomatic and consular authorities abroad;
 - **the diploma supplement or transcript of record**, legalized and written in Italian or in English;
 - **a copy of the qualification** with a translation into Italian or English

In the PICA procedure for forwarding applications to participate in the selection, it is only necessary to indicate the qualification required by the call (Master degree) and insert, where necessary, the required attachments. Qualifications superior or additional to the one valid for admission (e.g., PhD) can be declared in the section referring to other qualifications/titles.

In the event of qualifications not yet recognized, the candidate is admitted with reserve.



If the candidate turns out to be the winner, he must start the procedure above indicated and produce the required documents, within the terms peremptorily established by the Administration following the approval degree, in order to sign the contract.

Moreover, the applicant is also required:

- **to be at least 18 years old;**
- **to be in possession of civil and political rights;**
- **to have no criminal convictions or ongoing criminal proceedings that would prevent, in accordance with the regulations in force, the establishment of an employment relationship.**

The selective procedure does not allow admittance to:

- those who have a degree of kinship or affinity, up to and including the fourth degree, with a professor from the relevant structure, or with the Chancellor, the General Manager or a member of the University's Board of Directors;
- those who have been holders, including any renewals, of research grants awarded pursuant to Art. 22 of Law No. 240/2010 for a period which, added to the duration of the contract provided for by this call, exceeds a total of six years, except for the period in which the grant was used in coincidence with the PhD within the maximum legal duration of the relevant course;
- those who were contracted as research fellow or fixed-term researcher as per ss. 22 and 24 of Law 240/2010 at the University of Bergamo or other Italian public, private or online Athenaeums, as well as any other Body indicated in para 1 of s. 22 of Law 240/2010 for a length of time which, if summed to the duration of the contract in this announcement, exceeds 12 years in total, albeit not consecutive; periods of time spent on maternity or sick leaves do not count to the purpose of the duration of the aforementioned relationships, in accordance with current Laws;

The applicant enrolled in a Diploma di Laurea (DL), Diploma di Laurea Specialistica (LS), Laurea Magistrale (LM), PhD with study grant or medical specialisation in Italy or abroad can participate in the selection object hereof; should the applicant be the winner, the research grant will be awarded subject to withdrawal from studies or PhD study grant.

Pursuant to art. 22 paragraph 2 of Law 240/2010 cannot be recipient of the grants the regular personnel at universities, institutions and public entities of research and experimentation, the Italian National Agency for new technologies, energy and sustainable economic development (ENEA) and the Italian Space Agency (ASI) and institutions whose scientific specialization diploma was recognised equivalent to a PhD pursuant to the fourth paragraph under article 74 of Presidential Decree of 11 July 1980, No. 382.

The holder of the grant can attend PhD courses whose subjects are related to the research activities connected with the grant, upon prior evaluation of the Structure of reference. However, the research grant is incompatible with the enjoyment of the PhD study grant.

These requirements must be met on the date of expiry of the deadline for submitting the application for the admission to this selection.

This Administration guarantees equality and equal opportunities between men and women as to access to employment and treatment at work.

Article 3 Exclusion from the procedure

The following reasons are causes of exclusion:

- lack of signature on the application form;
- lack of admission requirements as provided for by Art. 2;
- failure to meet the procedures for submitting the application as mentioned under the following Art. 4.

The applicant is admitted if selected; should additional investigations be necessary; the applicant must regularize his/her application within the time peremptorily established.

The Administration may decide to exclude the applicant from the selection launched with this call, at any time, by reasoned Chancellor's Decree.



Article 4

Terms and conditions for submitting application

Under penalty of exclusion applications for participation in the competition, along with the relevant qualifications held and the relevant scientific publications, shall be submitted online through the following online application procedure:

<https://pica.cineca.it/unibg/>

The candidate will be able to register and access the platform using the Public Digital Identity System (SPID - security level 2). In case the candidate does not have one, he or she can request it according to the procedure indicated on the website www.spid.gov.it. Alternatively, the candidate can register and log in using the credentials released directly by the PICA platform.

It is of utmost importance to provide a valid email address in order to enable the registration process on the electronic procedure.

Applicants shall upload all personal and professional data as requested by the application procedure; all documents must be uploaded in PDF format (.pdf). Each applicant can produce a maximum of no. 40 publications and a maximum of no. 40 other titles and qualifications.

Failure to comply with the online application procedure will result in exclusion of the applicant.

Prior to final submission, and within the given deadline for applications submission, the online application procedure allows to modify and save the inserted information in a draft copy.

Confirmation of final submission date will be certified by an automatic notification email.

Submissions after the given deadlines will not be accepted by the system, as the online application procedure won't be accessible.

Each application will be given a registration number. For all further communications, the registration number shall be quoted along with the code of the research grant competition.

The online application and the submission procedure must be completed by and no later than **12.00 (Italian time) on the thirtieth day** from the notice publication date on the University website. Should the indicated deadline fall on a non-business day, it shall be postponed no later than 12.00 (Italian time) of the next business day.

The submission of the online application must be completed and finalized:

- **no digital signature:** in this case the candidate has to download the pdf file of the application by the system; the PDF file shall not be modified in any way, it is to be printed, signed in original, scanned in a pdf file and uploaded again on the website;
- **sign the application on the server using ConFirma service:** in order to sign digitally the application it is necessary to have a hardware (e.g., smart card or USB with digital signature certificate issued by an approved certification body) compatible with ConFirma service; after signing, applicants can download the signed pdf application;
- **sign the application digitally on your PC:** In order to sign digitally the application it is necessary to have a hardware (e.g., smart card or USB with digital signature certificate issued by an approved certification body) and a software for digital signatures in order to create a pdf.p7m file from the pdf file downloaded from this site. The pdf.p7m file must be uploaded in the website again;
- **in case of submission of the application through SPID,** it will not be necessary to sign the application form as it is automatically acquired by the procedure.

The application must contain all the required data by the system and must be signed and accompanied by a valid identification document of the candidate, under penalty of exclusion.

For any technical problems, contact support through the link available in the footer <https://pica.cineca.it/unibg>.

Article 5

Admission application

The applicant, filling the application, must declare, under his/her own responsibility, pursuant to what provided for by Presidential Decree 445/2000 and following amendments and integrations, as follows:

- his/her citizenship;



- to possess the qualifications mentioned in the attached annex A, indicating the degree cycle, the date on which it was obtained, the Institute that issued it and the final vote/assessment achieved; the applicant with qualification(s) obtained abroad must declare to have obtained the relevant recognition indicating in the application the details of the provision or must annex the required documentation according to what specified hereby;
- to possess any other requirements as mentioned in Annex A;
- to possess other qualifications useful for the assessment;
- to know the foreign language required by this call;
- in case of Italian citizenship: to be enrolled in the electoral lists, specifying the Municipality of belonging and possibly specifying the reasons for non-inclusion or cancellation from the same lists; in case of foreign citizenship: to possess civil and political rights in the Country of belonging or provenance, or the reasons for non-possession of the same;
- not to be excluded from the active political electorate;
- to have no criminal convictions, or declare possible convictions undergone, indicating the details of related sentences, and any pending criminal proceedings;
- to be/not to be a state employee, specifying to be/not to be a regular employee at Universities and other bodies as mentioned in Art. 22 of L. No. 240/2010;
- to have no degree of kinship or affinity, up to and including the fourth degree, with a professor from the relevant structure or with the Chancellor, the General Manager or a member of the University's Board of Directors;
- if enrolled in a Diploma di Laurea (DL), Diploma di Laurea Specialistica (LS), Laurea Magistrale (LM), PhD with study grant or medical specialisation, in Italy or abroad, to be aware that, in the event
- of awarding of the grant, attendance at such courses and the use of the PhD study grant are incompatible with the holding of the contract;
- to hold research grants awarded pursuant to Art. 22 of Law No. 240/2010;
- to hold contracts as fixed-term researcher pursuant to Art. 24 of Law No. 240/2010;
- to have attended a PhD indicating the period, University, date on which the qualification was obtained, cycle, exact title of the course and CUN Area;
- period of enjoyment of any PhD study grant;
- address to which communications concerning this competition are to be sent; it is mandatory to indicate a personal e-mail address as well;
- possible request to conduct the interview via videoconference indicating the phone number and motivation.

In the application for participating in the competition, the applicant, pursuant to Law No. 104 of 5 February 1992, must specify any aid necessary in relation to his/her need, as well as any need for additional time for the interview.

When submitting the application for participating in the selection, the applicant must annex the following documents:

1. a photocopy of the applicant's identity document in course of validity;
2. *curriculum vitae* in European format, dated and signed;
3. a list, signed by the applicant, of the publications and other research products, and other titles considered appropriate for the purposes of the selection such as specialisation degrees, certificates of attendance to postgraduate courses, obtained in Italy or abroad, contracts, study grant or research assignments both in Italy and abroad (cf. Annex B);
4. any publications, other research products or other titles that the candidate wishes to assert to the purpose of the procedure, numbered in progressive order matching the relating numbered list;
5. in the event of foreign applicant, it is necessary to annex: a copy of the residence permit (if the applicant is already in its possession).

For the abroad qualification, required for the purposes of selection admission, it's also necessary:



- in the event of qualifications already recognised as valid in the Italian territory, to indicate in the application **the details of the provision attesting the occurred recognition** pursuant to the applicable laws;
- in the event of qualifications not yet recognised attach to the application **one or more of the following documents**: a certified copy of the statement of qualification equivalence, issued by the competent Italian diplomatic and consular authorities abroad; the diploma supplement or transcript of record, legalized and written in Italian or in English; a copy of the qualification with a translation into Italian or English.

As regards all other qualifications obtained abroad which the applicant intends to provide for the selection as required by the call, it is necessary to annex to the application a copy of the qualifications. Each annex must be in PDF format and must not be larger than 30 MB.

Pursuant to Law No. 183/2011, the Administration cannot accept or request certificates, but only declarations in lieu of certifications or affidavits submitted in substitution of the actual certificates signed by the applicant and submitted together with an unauthenticated photocopy of the applicant's valid identify document. The Administration has the right to carry out suitable controls on the truthfulness of the contents of the declarations in lieu pursuant to what provided for by Presidential Decree No. 445/2000.

The requirements and the qualifications must be owned on the date of the expiry of the call.

It is mandatory to indicate a personal e-mail address to which the communications concerning this selection will be sent. Any variation of said address must be promptly communicated to the Selections Office (Servizio Assegni di ricerca).

Article 6 Examining Commission

The Examining Commission is appointed with Chancellor's decree, upon proposal of the Structure's Council, at the expiry of the deadline for submitting the application.

The Commission is authorized to carry out the on-line procedure, in the understanding that such method can be adopted until the conclusion of the relevant works, guaranteeing the security and traceability of communications.

Article 7 Selection

During its first meeting, the Examining Commission will establish the assessment criteria and procedures explicitly, according to what provided for by the call, fixing a minimum score for admission to the interview.

The overall assessment is expressed in hundredths, as indicated hereafter:

- up to a maximum of 60 points for qualifications and scientific-professional curriculum; to that end, the following will be object of assessment:
 - graduation vote;
 - PhD (if not already provided for as requirement for admission);
 - specialisation degrees and certificates of attendance to postgraduate courses, obtained in Italy or abroad;
 - publications and other research products;
 - documented research activities – as long as the beginning date and duration of the activities are duly certified – carried out at the premises of public and private subjects with contracts, study grants or assignments, both in Italy and abroad;
- up to 40 points for the interview.

Within the context of its autonomy, the Commission can integrate the above, depending on the research project and on what provided for by this call.

The Commission will evaluate, in particular, what is indicated in Annex A

The applicants will be informed before the interview on the results of the assessment of the qualifications.



The Commission reserves the right to carry out the interview via videoconference, through the use of IT and digital tools, guaranteeing the adoption of technical solutions that ensure the publicity of the same, the identification of the participants, as well as the security of communications, and their traceability. Failed connection at the time established or late connection, unless due to force majeure, will be considered as a renunciation to participate in the selection.

During the interview, the Commission will verify the applicant's ability to cover the topics and themes related to the research project and his/her knowledge of at least one foreign language, according to what provided for by the call.

The interview program is indicated in Annex A

The assessment of the knowledge of the foreign language (or foreign languages) as provided for by this call will be carried out during the selection according to the modalities established by the Commission.

The Commission reserves the right to verify the knowledge of the Italian language for foreign candidates; in this case, Italian language knowledge will be ascertained under ineligibility penalty and will not compete for the final score, unless otherwise established by the Commission.

The date and place of the interview will be communicated with at least a 20-day notice through a communication published on the website of University of Bergamo <http://www.unibg.it>, under the section "Concorsi e selezioni-Assegni. Borse e contratti di ricerca-Assegni di ricerca" supervised by the Servizio Assegni di ricerca.

This notice is to all intents and purposes an official communication. Any changes related to the date of the interview will be communicated to the admitted applicants with at least a 20-day notice through the publication of a communication on the University's website under the section "Concorsi e selezioni-Assegni. Borse e contratti di ricerca-Assegni di ricerca".

Failure to show up at the interview will be considered as a renunciation to participate in the competition for all practical purposes.

At the end of the works, the Commission draws up the list of the applicants examined, indicating the votes obtained during the interview.

The Commission will draft the merit list in descending order according to the overall final score, which is obtained by adding the score of the qualifications and the score of the interview.

Applicants will be inserted in the merit list if they obtain at least 30 out of the 40 points available for the interview.

In the event of equal score, the PhD or equivalent qualification obtained abroad will constitute a preferential qualification, if not required for admission; in the event of equal merit, the younger applicant will be preferred.

The merit list is approved, under the condition precedent of verifying the requirements provided for by the call, with Chancellor's Decree and published on the website under the section "Concorsi e selezioni-Assegni. Borse e contratti di ricerca-Assegni di ricerca". The term for submitting any appeals will run from the date of publication.

Should the winning applicant renounce to or withdrawal from the contract, the grant can be awarded to successful applicants according to the order of the merit list, upon prior resolution of the Research Structure.

Article 8

Signing of the contract and withdrawal

The winning applicant, in possession of the mentioned requirements, will sign an autonomous work contract under private law with effect, normally, on the first day of the month following the month in which the acts are approved.

As regards foreign applicants needing a residence permit, the date of beginning of the contract will be postponed and subject to the completion of the issuing procedure of said permit.

In the event of admission with reservation for qualifications obtained abroad not recognized as valid in the Italian territory, the winner, prior to signing the contract must submit the documents requested by the office within the terms peremptorily established.

The winner of the selection, convoked by the Administrative Office to sign the contract, will lose the right to the grant for collaboration in research activities if he/she does not state to accept the contract



or does not begin the activity within the established term, without prejudice to health reasons or causes of force majeure duly and promptly documented.

Each grant as mentioned under Art. 1 can be renewed, under the terms and conditions provided for by the above mentioned Regulations; in any case, the relationship established pursuant to Art. 22 of Law No. 240/2010, including the possible renewal, cannot last more than six years, including the possible renewal, with the exclusion of the period in which the grant was used in coincidence with the PhD within the maximum limit of the legal duration of the relevant course.

Article 9

Rights and obligations of the grant holder

The employment relationship is governed by an individual contract, according to what provided for by the applicable laws and by the University's Regulations.

The research activity is flexible, it has a continuous nature, not merely occasional, and is carried out under the leadership of the Scientific Director, with autonomous conditions as to the research programme and its realisation, without any predetermined working hours.

The grant holder must refer to the Research structure that requested the activation of the contract. The research activity of the grant holder is carried out within the context of the relevant Structure and in other Structures of the University on the basis of the research programme. Any research activities conducted outside of the University must be approved by the Council of the Research structure.

A period of permanence abroad is allowed at one or more qualified universities or research institutes, upon prior authorisation of the Council of the Research structure. During the period spent abroad, the amount of the grant will be increased by fifty percent to be charged to the Structure of reference or to the funds assigned to the Research structure.

The grant holder can participate in all the activities programmed by the Research structure for the promotion of researches and the dissemination of relevant results; he/she can be a member of the profit exams commissions, in quality of expert.

The Research structure must provide the grant holder all necessary support for realising his/her research programme, guaranteeing access to the equipment, the necessary resources and the use of the technical-administrative services.

The grant holder must comply with what provided for by the University's applicable Regulations on research integrity and ethics.

The winner of the selection who is entitled to the grant, at the time of the signature of the individual contract, should be committed, under penalty of forfeiture of the right to the research grant, to confidentiality and preventive transfer to the University of all intellectual property rights relating to the results produced and/or achieved during the research activities carried out at the University and she/he has the right to be recognized as the author of the his/her results achieved and/or products. The University recognizes the application of the same economic conditions that the University Patent Regulation grants to its Professors/Researchers.

The research fellow may participate in activities performed on behalf of third parties pursuant to art. 66 of Presidential Decree 382/80, in the context of issues related to its project, and the distribution of related proceeds, in accordance with the current University Regulations on the subject.

Article 10

Taxes, welfare, insurance and mission

With reference to taxes, the grants are subject to what provided for under Art. 4 of Law No. 476/1984, while as regards welfare, they are subject to what provided for under Art. 2, paragraph 26 and following, of Law No. 335/1995, and following amendments. With reference to mandatory maternity leave, they are subject to what provided for by the Decree of the Ministry of Labour and Welfare of 12 July 2007, published in the Official Gazette No. 247 of 23 October 2007, and, as regards sickness leave, they are subject to what provided for by Art. 1, paragraph 788, of Law No. 296 of 27 December 2006, and following amendments.



In the period of mandatory maternity leave, the bonus paid by INPS pursuant to Art. 5 of the mentioned Decree of 12 July 2007 is integrated by the University up to the payment of the total amount of the research grant.

The University will cover the grant holder's accident insurance and civil liability toward third parties' insurance within the scope of his/her research activity.

The covering of the grant holder's mission expenses is financed through the funds of the Scientific Director in charge or the Research structure, according to the modalities provided for by the University's regulations as to missions.

Article 11

Processing of personal data

In accordance with articles 13 and 14 of Regulation (EU) 2016/679 (GDPR), on the protection of personal data, and with D. Lgs. n. 196 /2003 and subsequent amendments, it is made known that data is controlled and managed by the legal representative of the University of Bergamo, via Salvecchio 19, - 24129 Bergamo.

Data will be collected exclusively for the present bid purposes and will be kept only for the necessary time to complete the relevant procedures. The data treatment controller will be appointed within the managing unit in charge of bidding procedure, who will carry out the treatment with all due respect of propriety, legitimacy, scope, transparency and confidentiality of the treatment; and data will be used exclusively for purposes connected to the selection and further conferment of the role and possible contract drafting, as well as management of the following employment position, in compliance with current regulations. Data will be kept for the necessary time to accomplish the selection purposes, subject to the application of norms on document retention, and will be transferred uniquely to public administration bodies directly concerned with the juridical and economic position of the selected applicant, treated in compliance with current regulations and used for personal, welfare, insurance and fiscal position management. Data will be handled by appointed staff through the acquisition of printed and electronic documents and using, even digitalised, filing procedures, to guarantee confidentiality; data treatment will be carried out through a coordinated organization and processing system, applying elevated safety standards. Furthermore, data will not be used for profiling. Applicants who have provided their personal data will be able to access it and exercise their rights as by art. 16 to 22 of GDPR UE 2016/679. Any safeguard request can be addressed to the University Data Protection Officer, who can be contacted through the university website (Privacy and Personal Data Protection section), e-mail dpo@unibg.it. In addition to the right of complaint which can be presented to the Italian Data Protection Authority, Piazza Venezia 11, 00187 Roma.

By presenting their application, candidates thereby authorise and fully consent to publication on the University institutional website of all information concerning the current bid, their own data and the contents of their CV in accordance with 111-bis of D.Lgs.196/2003 stating that, within the scope limits defined by art. 6, par. 1, letter b), of the Regulation, consent is not due for personal data present in a submitted CV.

Article 12

Person in charge of the procedure

The Person in charge of the selection procedure within this call is Dr. Domenico Panetta, manager of Area risorse umane, Via dei Caniana, 2 - 24127 Bergamo, phone (+39) 035 2052 669 - 583 - 878, e-mail address: assegni.ricerca@unibg.it.

Article 13

Publication

This call is published in the University's Official Registry, on the website of the Conference of the Italian University Chancellors (www.cru.it), on the website of the Ministry of Education, Research and University (MIUR) at the link <http://bandi.miur.it>, and on the website of the European Union at the link <http://ec.europa.eu/euraxess> in the form of a notice.

The full competition and related annexed forms are available on the website of the University of Bergamo www.unibg.it under the specially devoted section "*Concorsi e selezioni-Assegni. Borse e contratti di ricerca-Assegni di ricerca*".



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The call is also published on “*Piattaforma Integrata Concorsi Atenei*” (PICA) – link <http://pica.cineca.it/unibg/> from which it is possible to fill the application online for participation at the selection.

**Article 14
Final provisions**

For all matters not provided for by this call, the following will be applied: Law No. 240/2010 and following amendments and integrations, the University’s Regulations on the awarding of research grants, the University’s Regulations in force, and the Regulations on employment relationships in the public administration.

Bergamo, as per protocol registration

THE CHANCELLOR
(Prof. Sergio Cavalieri)
Documento firmato digitalmente ai sensi
dell’art. 24 del D. Lgs. 82/2005



ANNEX A

RESEARCH PROJECT - CODE 1

“Social competence in the school-age period: the acquisition of second-order recursive thinking”

Research structure: Department of Human and social sciences
Department Resolution: 18.10.2023

Resolution of the Academic Senate: 02.05.2023
Resolution of the Board of Directors: 03.05.2023

Duration of the grant: 12 months

Gross annual amount: € 25.000,00;
Financial coverage:
ASSEGNO23ANDSUS CUP F53C23000190005

Scientific Area: 11 - History, philosophy, pedagogy and psychology
Academic recruitment field: 11/E2 - Developmental and educational psychology
Academic discipline: M-PSI/04 - Developmental and educational psychology

Scientific Director: prof.ssa Castelli Ilaria

Access requirements:

Diploma di Laurea Specialistica (LS) o Laurea Magistrale (LM) in Psicologia (classi LM-51 o 58/S) ed equiparati ovvero Diploma di Laurea (DL) conseguito secondo le modalità precedenti all'entrata in vigore del D.M. 509/1999 e s.m.i. e titoli equipollenti ai fini dell'ammissione ai pubblici concorsi;

Foreign language: English

Additional requirements for assessment:

Master Degree dissertation and/or publications on topics close to those indicated in the project;
Research experiences on topics close to those indicated in the project;
Collaborations and/or projects and/or interventions carried on in schools;
Significant experiences of mobility, such as Erasmus and/or international traineeship.

Interview program:

Assessment of the basic theoretical and metodological knowledge related to the project;
Assessment of English competence;
Motivational aspects.

Research Project:

The development of social competence is of particular importance in developmental age, as it offers the child a series of tools to interact effectively with adults and peers in the various social contexts in which he/she lives (Castelli et al., 2022). One of these tools is Theory of Mind, defined as the ability to represent one's own and others' mental states to understand, explain and predict one's own and others' behavior, for the purpose of a good social and academic adaptation (Premack & Woodruff, 1978; Wimmer & Perner, 1983). The development of Theory of Mind takes place across the pre-school and the school period, through a developmental process characterized by two key acquisitions: the understanding of 1st order recursive thinking around 4 years of age, and the understanding of 2nd order recursive thinking around 6/7 years of age. These two ways of thinking are assessed through the first- and second-order false belief tasks, respectively. To date, the developmental steps that lead



to mastering first order false belief reasoning in the preschool age are well known (e.g., Wellman & Liu, 2004), while the process of acquiring second-order false belief reasoning remains little explored, at a national and international level. Second order false belief reasoning occurs between the end of the preschool age and 7/8 years of age, therefore in a crucial developmental phase of transition from nursery school to primary school with the developmental tasks that these transitions entail. The present study intends to fill this gap through the use of a new Theory of Mind task devised on the PC, in which children will be presented with stories containing manipulations of second-order recursive thinking both at the level of beliefs (true vs. false) and at the level of desires (positive vs. negative), following what is present in the literature for first-order recursive thinking (Apperly et al., 2011). The PC test will allow for the first time not only to evaluate the level of accuracy in the various conditions of second order recursive thinking, but also to capture reaction times during the task, in order to have implicit measures on the perceived difficulty of the task. We expect that the present work can in the short term expand current knowledge in the Theory of Mind domain, in particular by shedding light on some conditions that impact performance on second-order recursive thinking tests. In the medium/long term, the study will lay the foundations for the construction of a scale that evaluates the intermediate stages of acquisition between the mastery of first-order and second-order false beliefs. It is important to note that sector studies on the development of Theory of Mind between the ages of 5 and 8 are still quite rare. Besides the scientific results, the collaboration with schools will also make it possible to identify whether the stories created can become schoolwork material, which teachers can use autonomously in classes in order to support the development of social competence in its mature components (second order recursive thinking) within everyday educational contexts. Given the importance that Theory of Mind has for good success at a relational (e.g., Fink et al., 2015) and academic (e.g., Lecce, 2021) levels, and with better levels of metacognition (e.g., Bianco et al., 2021), the advances in knowledge to which the project will lead may therefore also have implications for the educational intervention in the school context.

Furthermore, the project will include the collaboration with other national and international research teams, in particular with Professor Laura Visu-Petra of the Babes-Bolyai University of Romania, an expert professor on the topic in question. The project will offer the opportunity to spend a period of work at the "RIDDLE - Research in Individual Differences and Legal Psychology - Developmental Psychology Laboratory" laboratory directed by prof. Visu-Petra at the Babes-Bolyai University of Romania, to implement international research collaborations.



RESEARCH PROJECT - CODE 2

"Assessing students' digital competences: from measurement scale to threshold levels"

Research structure: Department of Human and social sciences

Department Resolution: 15.11.2023

Resolution of the Academic Senate: 02.05.2023

Resolution of the Board of Directors: 03.05.2023

Duration of the grant: 24 months

Gross annual amount: € 25.000,00;

Financial coverage: ASSEGN023BIDSUS

Scientific Area: 11 - History, philosophy, pedagogy and psychology

Academic recruitment field: 11/D2 - Methodologies of teaching, special education and educational research

Academic discipline: M-PED/03 - Methodologies of teaching and special education

Scientific Director: Prof. Lazzari Marco

Access requirements:

Diploma di Laurea Specialistica (LS) o Laurea Magistrale (LM) in Scienze pedagogiche (classi LM-85 o 87/S) ed equiparati ovvero Diploma di Laurea (DL) conseguito secondo le modalità precedenti all'entrata in vigore del D.M. 509/1999 e s.m.i. e titoli equipollenti ai fini dell'ammissione ai pubblici concorsi;

Foreign language: English

Additional requirements for assessment:

Knowledge of the European reference framework for the evaluation of digital competences.

Knowledge of the main methods of collection, analysis and processing of research data.

Previous experience in areas related to that of the research project; doctoral or postgraduate thesis on areas related to that of the research project.

Interview program:

The interview will aim to verify the aptitude and experience to collaborate on the research project covered by the tender. The interview will verify, in Italian and English, the theoretical and methodological knowledge relating to the topic of digital competences and their evaluation.

Research Project:

The project addresses the issue of defining digital competence levels and adequacy thresholds corresponding to the different school grades. In collaboration with INVALSI, the aim will be to define the typology of target levels and how they should be identified. The grant holder will take part in some actions of the INVALSI "DIGCOMP.MIS" project, in order to refine the target levels, verifying and remodelling them also on the basis of the data collected by the project, up to a finalisation of the scale of levels.

The project will be divided into the following phases:

- Retrieval and critical analysis of scientific literature
- Initial definition of the type of target levels and identification methods (e.g. standard-referenced approach, descriptive proficiency levels approach)
- Participation in some actions of the INVALSI "DIGCOMP.MIS" project (Actions 1, 4, 5) and refinement



of the target levels

- Verification and remodelling of the levels, also on the basis of INVALSI data (Action 3)
- Finalisation of the levels scale
- Drafting and publication of project results.

The project will require some of the work phases to be carried out at INVALSI and possibly at educational institutions deemed significant for the purposes of the research.



RESEARCH PROJECT - CODE 3

“DamagE Modelling contAct iNterfaces meChanical comPonents cyclicAlly sTrEssed (EMANCIPATE)”

Research structure: Department of Management, information and production engineering
Department Resolution: 09.11.2023

Resolution of the Academic Senate: 02.05.2023
Resolution of the Board of Directors: 03.05.2023

Gross annual amount: € 25.000,00;
Financial coverage: ASSEGN023ANDIGIP- CUP F53C23000190005

Duration of the grant: 12 months

Scientific Area: 09 - Industrial and information engineering
Academic recruitment field: 09/A3 - Industrial design, machine construction and metallurgy
Academic discipline: ING-IND/14 - Mechanical design and machine construction

Scientific Director: Prof. Lavella Mario

Access requirements:

Diploma di Laurea Specialistica (LS) o Laurea Magistrale (LM) in Ingegneria aerospaziale e astronautica (classi LM-20 o 25/S) o in Ingegneria biomedica (classi LM-21 o 26/S) o in Ingegneria chimica (classi LM-22 o LM-26 Ingegneria della sicurezza o 27/S) o in Ingegneria energetica e nucleare (classi LM-30 o 33/S) o in Ingegneria meccanica (classi LM-33 o 36/S) o in Ingegneria navale (classi LM-34 o 37/S) ed equiparati ovvero Diploma di Laurea (DL) conseguito secondo le modalità precedenti all'entrata in vigore del D.M. 509/1999 e s.m.i. e titoli equipollenti ai fini dell'ammissione ai pubblici concorsi;

Foreign language: English

Additional requirements for assessment:

Although it is not a mandatory qualification for evaluation, having gained generic or specific experiences relevant to the research activity constitutes a preferential qualification for the assignment of the role. The experience will be evaluated by means of the evaluation of:

- scientific publications;
- PhD thesis;
- master's thesis;
- use of scientific calculation software, FEM and CAD.

Interview program:

- modelling of contact problem between elastic bodies;
- Hertz theory;
- elastic half-space and potential functions of Boussinesq-Cerruti;
- Fretting;
- Wear fatigue and oxidation;
- Damage modelling of fretting, wear, fatigue and oxidation.

Research Project:

The study of contact interfaces subjected to cyclic stresses, as these are included in almost all machines, finds multiple and strategic applications in different sectors such as aeronautical, biomedical, automotive, railway and power generation. Some specific examples in the turbomachinery



applications are the interface between the turbine blade attachment and the related disk; the interfaces of the blades with the vibration damping systems, shrouds and dampers. With regard to biomedical applications, the phenomenon is found, e.g. on the interfaces of hip prostheses, dental implants, mandibular cartilage and many other applications. Other much studied joints are the interfaces of heat exchanger tubes in steam generators for nuclear power plants; the interfaces of the bearing rings with the housing or with the shafts; wheel axle interfaces in railway axles and many others. Contact interfaces studies have a vast plethora of applications. In this project, the reference problem of reference will be the interfaces of the turbine blades since an important amount of experimental data are available which will be fundamental for achieving a good result.

The damage from relative reciprocating motion of the contact surfaces is defined as fretting when the amplitude of the relative displacements is much lower than the characteristic length of the contact area measured along the direction of the relative displacement. As consequence of the small displacement amplitude, the debris generated by the relative motion of the contact surfaces are trapped in the contact interface and, consequently, plays a fundamental role in the activation of different fretting damage mechanisms, wear, fatigue and oxidation. The domains of process parameters in which fatigue or wear is dominant depend on several factors, the most important of which is the magnitude of the relative motion.

The definition of fretting regimes is based on the fact that the reciprocating relative motion can only be extended to a fraction of the contact surface. In other words, there are areas of the contact surface that are in relative motion (slip) and others that are in adhesion (stick). The definition of fretting regimes depends on these conditions. If all the points of the contact surface were in adhesion, we would speak of a stick regime. It can be demonstrated that this regime essentially does not exist since, if the interaction of the contact surfaces is based on friction, there must always exist a zone of the contact interface in relative motion. The mixed stick-slip regime or partial slip regime defines this condition of partial slipping of the contact surfaces in which a stick zone and a slip zone can be identified on the same contact interface. The gross slip regime is that process condition in which all points of the contact surface are in relative slip, i.e. the entire contact interface is in slip and there is no stick zone. When the process parameters determine the mixed stick-slip regime, fatigue damage is dominant while wear and oxidation are limited, consequently we speak of fretting fatigue. In the gross slip regime, damage from wear and oxidation is dominant and is referred to as fretting wear. Currently, the modeling of fretting fatigue and fretting wear are the two main lines of fretting research that evolve in parallel with little integration, the literature on the topic is extremely vast.

The main objective of this project is the development of a fretting model that integrates or at least is potentially capable of integrating the damage mechanisms from fretting wear, fatigue and oxidation. Obviously a fully integrated model cannot be developed by a single research fellow in one year. Therefore, the goal of the fellow will be to develop a semi-analytical model for fretting wear that distinguishes the two main regimes, gross slip and mixed stick-slip, which can be integrated with the effects of oxidation and describes the stresses with an appropriate detail to solve the problem of fatigue. In other words, a modeling infrastructure for fretting wear damage will be developed which can also be integrated with fretting fatigue damage.