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. 9 Experienced grants for conducting research pursuant to art. 22 of law no. 240/2010 at the Departments within the framework of the 2021 Stars programme – I Part – CUP: F59C20000390001 - Type A - Pica Code 22AR003

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. 92/2012 of 16 February 2012;
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;

Referring also to:
- 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;

GIVEN the resolutions of the Academic Senate of 26.10.2020 which approved the 2021 Stars Programme – Action 1;
GIVEN the resolution of the Academic Senate of 25.06.2021 which approved the design proposals arrived following the notice of the Research Service with deadline 31.01.2021;
ACQUIRED the resolution of the Human and Social Sciences Department of 19.10.2021 which the assigned funds for a three-year grant were allocated to co-financing a Fixed-term researcher letter A) position as disposed by the Academic Senate;
ACQUIRED the resolutions of the Councils of the Structures involved which approved the biennial and triennial research projects and resolved on the requirements for candidates’ admission to the selection;
ASCERTAINED the financial backing on the Bank account account “progetto di ricerca di Ateneo STaRs (Supporting Talented Researchers) azione 1 - 2021 - I Tranche a CUP F59C20000390001 – project UGOV: STARS2123AZ1SR;

DECRES

Article 1
Call for public selection

9 public selections are launched based on qualifications and interview for the awarding of No. 9 grants for conducting research pursuant to Art. 22 of L. No. 240/2010 with a contract under private law at the research structures of the University of Bergamo as indicated hereafter:

<table>
<thead>
<tr>
<th>COD</th>
<th>TYP</th>
<th>DEPARTMENT</th>
<th>DURATION</th>
<th>TITLE</th>
<th>SC</th>
<th>SSD</th>
<th>TUTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>Management, information and production engineering (deliberations 19.07.2021 and 15.02.2022)</td>
<td>24 months</td>
<td>Advanced optimization approaches for the integrated management of resources in home care services</td>
<td>09/G2</td>
<td>Bioengineering</td>
<td>Prof. LANZARONE Ettore</td>
</tr>
<tr>
<td>2</td>
<td>A</td>
<td>Engineering and applied sciences (deliberation 14.10.2021)</td>
<td>24 months</td>
<td>Integrated retrofit of existing buildings with a life cycle thinking (LCT) approach</td>
<td>08/B3</td>
<td>Structural engineering</td>
<td>Prof.ssa MARINI Alessandra</td>
</tr>
<tr>
<td>3</td>
<td>A</td>
<td>Economics (deliberation 22.07.2021)</td>
<td>24 months</td>
<td>The social and economic impact of school closures due to the spread of the SARS-COVID19 virus: a simulated statistical study</td>
<td>13/01</td>
<td>Statistics</td>
<td>Prof.ssa NEGRI Ilia</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>Letters, philosophy, communication (deliberation 26.07.2021)</td>
<td>36 months</td>
<td>Aldo Buzzi. Literature and image</td>
<td>10/F4</td>
<td>Literary criticism and comparative literature</td>
<td>Prof. BELPOLITI Marco</td>
</tr>
<tr>
<td>5</td>
<td>A</td>
<td>Engineering and applied sciences (deliberation 21.07.2021)</td>
<td>36 months</td>
<td>Telecommunication and space-time propulsion: theoretical study for the technological realization in the laboratory</td>
<td>02/A2</td>
<td>Theoretical physics of fundamental interactions</td>
<td>Prof. GA RATTINI Remo</td>
</tr>
<tr>
<td>6</td>
<td>A</td>
<td>Letters, philosophy, communication (deliberation 24.09.2021)</td>
<td>36 months</td>
<td>“Crisis of the presence” and social catastrophes</td>
<td>14/01</td>
<td>Economic sociology, sociology of work, urban and environmental sociology</td>
<td>Prof. MARZANO Marco</td>
</tr>
<tr>
<td>7</td>
<td>A</td>
<td>Management, information and</td>
<td>36 months</td>
<td>The distinctiveness of student entrepreneurship and its different manifestations:</td>
<td>09/B3</td>
<td>Business</td>
<td>Prof. PA LEARI Stefano</td>
</tr>
</tbody>
</table>
For each grant the annual gross amount charged to the recipient is equal to € 24,216.00 and 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:

- **3rd cycle degree: PhD** (see the following table)

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 (degree cycle or CUN Area for PhD qualifications) – 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 is required as follows:

- 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, to annex to the application a certified copy of the statement of qualification equivalence, issued by the competent Italian diplomatic and consular authorities abroad, and the certificate of the exams taken or the supplement degree.

In order to ensure the widest participation in the selection, the applicant who is not in possession of the above documentation can annex a copy of the qualification with a translation into Italian or English; the candidate will have to submit the above documents within the terms peremptorily established by the Office under penalty of exclusion.

In the event of qualifications not yet recognised, the candidate is admitted if selected and, if winner, prior to signing the contract, must submit the documents requested by the office within the terms peremptorily established.
- knowledge of one or more foreign languages (see the following table); the knowledge of the Italian language shall be evaluated for foreign candidates.

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.

<table>
<thead>
<tr>
<th>CODE</th>
<th>SPECIFIC REQUIREMENTS</th>
<th>LANGUAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PhD in CUN Area 09 - Industrial and information engineering or Area 01 - Mathematics and informatics</td>
<td>English</td>
</tr>
<tr>
<td>2</td>
<td>PhD in CUN Area 08 - Civil engineering and architecture</td>
<td>English</td>
</tr>
<tr>
<td>3</td>
<td>PhD in CUN Area 13 - Economics and statistics or Area 01 - Mathematics and informatics</td>
<td>English</td>
</tr>
<tr>
<td>4</td>
<td>PhD in CUN Area 10 - Antiquities, philology, literary studies, art history</td>
<td>English</td>
</tr>
<tr>
<td>5</td>
<td>PhD in CUN Area 02 - Physics</td>
<td>English</td>
</tr>
<tr>
<td>6</td>
<td>PhD in CUN Area 10 - Antiquities, philology, literary studies, art history</td>
<td>English</td>
</tr>
<tr>
<td>7</td>
<td>PhD in CUN Area 09 - Industrial and information engineering or 13 - Economics and statistics</td>
<td>English</td>
</tr>
<tr>
<td>8</td>
<td>PhD in CUN Area 09 - Industrial and information engineering</td>
<td>English</td>
</tr>
<tr>
<td>9</td>
<td>PhD in CUN Area 14 - Political and social sciences</td>
<td>English</td>
</tr>
</tbody>
</table>

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 can not 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.

The applicant not in possession of Italian citizenship and admitted to the competition in accordance with what indicated above must also meet the following requirements:

a) possess civil and political rights also in the Countries of belonging or of provenance;
b) be in possession, except for holding Italian citizenship, of all the other requirements laid down for the Italian citizens;
c) have appropriate knowledge of Italian.

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 have to download the pdf file of the application by the system; the PDF file shall not be modified in any way, It is to 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 an 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 an 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://picacineca.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 previous Art. 2, indicating the degree cycle/CUN Area of PhD, 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 Art. 2;
- to possess other qualifications useful for the assessment;
- to know the foreign language required by this call; the applicant with citizenship other than Italian must also declare to have an adequate knowledge of Italian;
- 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 needs, 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).

As regards qualifications obtained abroad, for admission to the selection, the applicant is required as follows:

• if recognised as valid in the Italian territory, the applicant must indicate in the application the details of comparability/equivalence of the qualifications obtained abroad;

• if not recognised as valid in the Italian territory, the applicant must annex copy of the qualification obtained abroad (obligatory annex) with a declaration translated in Italian or in English language and a certified copy of the declaration of equivalent qualification (obligatory annex), issued by the competent Italian diplomatic and consular authorities abroad, with the certificate of the exams taken or the diploma supplement.

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 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.

Article 7
Selection

During its first meeting, the Examining Commission will establish the assessment criteria and proce-
dures 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, ob-
tained 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 re-
search project and on what provided for by this call.

In particular will be evaluated:

<table>
<thead>
<tr>
<th>CODE</th>
<th>Description</th>
</tr>
</thead>
</table>
| 1    | PhD in topics related to operational research and / or engineering and industrial bioengi-
      neering. |
| 2    | experience in the field of design with an LCT approach; 
      experience in the field of the retrofit of existing buildings; 
      experience in the field of durability of structures; 
      experience in the assessment of the feasibility of the retrofit interventions; 
      experience in the use of structural FEM codes and in the modelling of decay. |
| 3    | - |
| 4    | Previous post-lauream research on the project’s topics. 
      Scientific publications on subjects akin to the project matters |
| 5    | Research activity in the field of theoretical physics or related topics |
| 6    | - |
| 7    | 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 acti-
      vities are duly certified – carried out at the premises of public and private subjects 
      with contracts, study grants or assignments, both in Italy and abroad |
      In particular will be evaluated: |
The applicants will be informed before the interview on the results of the assessment of the qualifications.

The interview can be carried out via videoconference, if authorised by the Commission, as long as it is possible to recognise with certainty the applicant’s identity, to be verified subsequently at the moment of the signing of the contract. To that end, the applicant must indicate in the application the request to carry out the interview via videoconference specifying the reasons. 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.

<table>
<thead>
<tr>
<th>CODE</th>
<th>PROGRAMME OF THE INTERVIEW</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Discussion on candidate’s previous experiences. Discussion on the relevance of the experiences to the research program. Technical discussion on stochastic and robust optimization topics. Verification of English language knowledge.</td>
</tr>
<tr>
<td>2</td>
<td>Sustainable design; LCT design principles and criteria; Seismic behavior of existing buildings; Dissipative or over-resistant exoskeleton solutions for the energy–structural retrofit of buildings; performance based design and design targets from an LCT perspective, conceptual design and proportioning criteria of the stiffness and the capacity of the exoskeletons, integrated performance metrics, limits of applicability of the exoskeleton solutions; connections between existing building and exoskeleton; finite element programs for the analysis of the structural behavior of existing buildings</td>
</tr>
<tr>
<td>3</td>
<td>The interview will focus 1) on the motivations and interest in the topic of the research project; 2) on the specific topics requested in the research project, in particular hierarchical models, Bayesian hierarchical models</td>
</tr>
<tr>
<td>4</td>
<td>Interview on the topics of the project, with verification of research skills on the topics indicated by the word and image relationship with reference to the author’s cinematographic themes</td>
</tr>
<tr>
<td>5</td>
<td>General Relativity, Quantum Field Theory, Zero Point Energy and Traversable Wormholes</td>
</tr>
<tr>
<td>6</td>
<td>Assessment of the Skills acquired to implement the research project</td>
</tr>
<tr>
<td>7</td>
<td>Student entrepreneurship: definition, manifestations and levels of analysis; Student entrepreneurship: empirical issues in analyzing the phenomenon; Student entrepreneurship: antecedents and outcomes; Student entrepreneurship: opportunities for broader contribution to entrepreneurship studies</td>
</tr>
<tr>
<td>9</td>
<td>The interview will verify the candidate’s knowledge about the sociology of health and medicine, the narrative approach on the study of organizations, and the main theoretical categories developed by the Science and Technology Studies (STS) applied to medicine. In particular, the ability of the candidate to combine the interpretation of socio-technical situated practices with the broader organization of socio-health systems and with the prevailing epistemological paradigms will be assessed.</td>
</tr>
</tbody>
</table>
In-depth knowledge of qualitative methods of social research and, in particular of the ethnographic method, will also be verified.

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. As regards foreign applicants, the knowledge of Italian will be assessed.

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 Ufficio 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. The overall final score identifies the winner or winners, depending on the number of grants established for the competition.

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 her/his 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.

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.crui.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”.

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

Firmato digitalmente da: Sergio Cavalieri
Limitazione d’uso: Explicit Text: Il titolare ha usato il presente certificato solo per le finalità di lavoro per le quali esso è rilasciato. The certificate holder must use the certificate only for the purposes for which it is issued.
Data: 23/02/2022 10:29:34
RESEARCH PROJECT - CODE 1

“Advanced optimization approaches for the integrated management of resources in home care services”

Research structure: Department of Management, information and production engineering
Duration of the grant: 24 months
Scientific Area: 09 - Industrial and information engineering
Academic recruitment field: 09/G2 - Bioengineering
Academic discipline: ING-IND/34 - Industrial bioengineering
Scientific Director: Prof. LANZARONE Ettore

The high complexity of home care services requires an optimal management of human (doctors, nurses, ...) and material (devices, consumables, ...) resources involved in service provisioning. In particular, new types of service (e.g., complex rehabilitation therapies, diagnostic tests, patient monitoring) require careful management of the material resources involved in the service, which can represent a relevant cost item, and their management may influence the scheduling of visits. Unfortunately, devices and materials are not considered in the models available in the literature and in the practice of several home service providers, as well as the technical staff necessary to use them. Therefore, the project addresses the integrated management of material resources in home care services, considering two levels. The main level is the organizational one, for which we aim to enrich the available models with a component dealing with material resources, focusing on stochastic and robust optimization models in order to include the management of the uncertainty typical of home care services. This will be accompanied by a technical level, with the evaluation the existing devices that are most suitable for use in home care services, and with the definition of technical specifications for the future development of devices specifically optimized for home use.
RESEARCH PROJECT - CODE 2

“Integrated retrofit of existing buildings with a life cycle thinking (LCT) approach”

Research structure: Department of Engineering and applied sciences
Duration of the grant: 24 months
Scientific Area: 08 - Civil engineering and architecture
Academic recruitment field: 08/B3 - Structural engineering
Academic discipline: ICAR/09 - Structural engineering
Scientific Director: Prof.ssa MARINI Alessandra

The sustainable retrofit of existing buildings is recognized as a priority, as highlighted by the European Green Deal and by national and international incentive policies. This can only be achieved through holistic interventions, which make buildings not only less impactful on the environment, but also safer and resilient.

Today, the scientific community is tackling this problem by proposing integrated energy and structural interventions, however: 1) a decoupled approach to design is still being used, applying techniques and tools independently of one another; 2) interventions are rarely conceived within a Life Cycle Thinking (LCT) approach, as instead suggested by the European Framework for the design of sustainable buildings, thus missing the opportunity to effectively minimize impacts and costs along the life cycle; 3) these interventions are only rarely applied, regardless of substantial economic incentives.

In order to increase the sustainability of the buildings and facilitate the application of these interventions, some frameworks have recently been proposed, but their applicability is still limited in the absence of operative tools to be adopted by design professionals.

In this scenario, it is necessary to rethink structural engineering as well as integrated retrofit interventions, defining new design principles inspired by the LCT and providing new tools that allow the application of these principles by designers, industry and all the stakeholders.

The research project aims to investigate the adoption of the LCT approach in the holistic retrofit of existing structures, to provide new operative tools to enable the application of design frameworks and to apply the results of the research for the re-engineering of existing retrofit solutions. The research will be articulated into the following phases:

1) Analysis of the retrofit needs to ensure the sustainability of buildings. Considering an LCT vision, the project of the intervention must guarantee: the sustainability of the techniques and materials to reduce the impacts during the construction phase; damage minimization and easy repairability in the case of an earthquake to ensure resilience and reduce costs and impact of possible repair measures; durability of materials and ease of maintenance along the service life; the building's adaptability to possible future needs; and the dismantling of the intervention and the possible recycle/reuse of components in order to reduce waste and end-of-life impacts, as well as to encourage a circular economy. For each of these new performances, the state of the art will be analyzed, numerical and/or experimental simulations will be carried out and new design criteria for sustainable intervention will be defined. (10 months)

2) Design of tools to improve reliability and adoptability of the frameworks for the design of sustainable interventions. This research products are envisioned: a) multi-criteria decision-making tools for the preliminary selection of interventions that take into consideration barriers and client’s needs; b) new quantitative design targets aimed at reducing damage and losses in the event of an earthquake; c) new metrics for the comparative evaluation of the performance of different interventions along the life cycle. (7 months)

3) Analysis of traditional retrofit interventions for various structural typologies; analysis of possible re-engineering to guarantee compliance to LCT principles. Examples of traditional and innovative iso-performance solutions will be applied to case studies and compared in terms of life cycle performance (LCA, LCC, losses). (7 months).
RESEARCH PROJECT - CODE 3

“The social and economic impact of school closures due to the spread of the SARS-COV19 virus: a simulated statistical study”

Research structure: Department of Economics
Duration of the grant: 24 months
Scientific Area: 13 - Economics and statistics
Academic recruitment field: 13/D1 - Statistics
Academic discipline: SECS-S/01 - Statistics
Scientific Director: Prof.ssa NEGRI Ilia

We want to investigate the effect of school closures on the spread of coronavirus disease 2019 (COVID-19) and on mortality due to it on the population of our country. Similar studies rely on simulating different school closure strategies to evaluate the impact of such actions in mitigating the spread of influenza. For example, in the case of the 2009 outbreak of the H1N1 flu form.

One of the most important simulation models used is the one developed by the Imperial College in 2006 to study the spread of an emerging form of influenza in Southeast Asia, taken up and updated to the case of the spread from China to Europe by the COVID-19 pandemic.

The Imperial College model estimates the R(t) (a fundamental epidemiological quantity that represents the average number of infections generated at time t by each infected case during its own infection) with a sophisticated system that includes in the model all those forms of mitigation of the spread of the virus such as social distance, closure of borders, closure of schools, isolation of symptomatic cases and their contacts, general lockdowns. The estimation of R(t) in the case of the spread of the new coronavirus SARS-CoV-2 is particularly complicated by the fact that both in the first phase of the spread of the virus than in the following waves, there is a high proportion of infected subjects that the national health system is unable to identify. The model, therefore, reconstructs with a Bayesian technique the number of infected starting from the number of deaths.

The number of deaths from COVID-19 also presents reliability problems.

Having good estimates of mortality, therefore, is essential to have minor margins of errors in estimates of the spread of the infection. In some recent works, the number of deaths from COVID-19 in the first epidemic wave have been estimated with accuracy and therefore this method of estimation, suitably updated, can be included in the Imperial College model to improve estimates of the spread of the infection.

The project therefore envisages, by appropriately modifying the simulation model in several parts, to evaluate the impact that the closure of schools has had on the spread of COVID-19 in Italy and in its regions. We want to evaluate through different scenarios whether there are more reasons to evoke the closure of schools than there are for a lockdown of the whole society, measuring how much the increase in infections is attributable to the school. In Italy there has been and continues to be an unacceptable disparity of indications from region to region regarding the closure of schools. This allows us to analyze the variability of the spread of the infection in the different regions and to evaluate the impact that the closure of schools has in those regions.

The research project specifically envisages, in a first phase (of an estimated duration of about one or two months), the research and formulation of explicit representations of the population in the various Italian regions by age and gender, of the entire school system, of the workplaces and commuting and families. These data can be found from ISTAT and the Ministry of Education. These data, after being processed, must be implemented in the Imperial College model. This second phase of the project is the most substantial and has two main objectives. The first (obtainable in a period of 6 to 12 months) is to evaluate the impact of school closures on the spread of COVID-19 (measured by the number of infected). Therefore, different simulation scenarios are envisaged involving different school closure strategies ranging from isolating sick students to the individual closure of some schools up to the closure of the entire school system. The study also plans to evaluate how the effects of the various
strategies can vary with different durations of the closure of schools. The second objective (also obtainable in a period of similar duration to the previous one) concerns the socio-economic impact of the closure of schools in terms of loss of income that the persistent closure of schools has brought to prominence by expanding social and economic injustices, especially in those families that are already historically more marginalized and who suffer more in this phase. For this objective it is fundamental to consider the different results obtained in the first objective and to consider the geographical representation of the Italian population that takes into account the distribution by age, income and health that are in full with the national averages for each region and province considered.

The ideal candidate has a solid knowledge of statistics in the field of modeling and estimation and have good programming skills in R, as the Imperial College model was developed in that language. In completing the project, the research fellow will be able to find in the Department of Economics of the University of Bergamo a valid group of researchers in statistics and economics who will be able to involve her/him and where he/she will be able to train and further specialize on the topics proposed in the project. Furthermore, the professor’s collaboration with colleagues from the University of Rome Tor Vergata and the University of Milan will allow the research fellow to be involved in stimulating and interesting research environments for her education.
RESEARCH PROJECT - CODE 4

“Aldo Buzzi. Literature and image”

Research structure: Department of Letters, philosophy, communication
Duration of the grant: 24 months
Scientific Area: 10– Antiquities, philology, literary studies, art history
Academic recruitment field: L–FIL–LET/14 - Literary criticism and comparative literature
Academic discipline: 10/F4 - Literary criticism and comparative literature
Scientific Director: Prof. BELPOLITI Marco

The three-step path of the research - one for each of the three years envisaged - will first retrace the training of Buzzi (1930–1938), in contact with authoritative figures such as Giò Ponti, Leonardo Sinigallia and Bruno Munari (with whom he will realize the Assistant director’s notebook), and characterized by the collaboration both with magazines at the “frond” era such as “Corrente” and “Prospettive”, and with architecture and graphics magazines such as “Domus” (for which Buzzi directs a small film popularization series); he will then move on to twenty years of experience in cinema (1942–62), which coincides with the move to Rome and with numerous stays abroad; and will then end with his return to Milan, his employment at the Rizzoli publishing house (1966–76), his frequent business trips to Bergamo, in collaboration with his architect friend Sandro Angelini and his definitive consecration as a writer (1979–2009), published by various publishers, including Adelphi.

The materials on which the research will be conducted will be those, largely unpublished, from the archive of Buzzi himself, formerly the subject of museum exhibitions but currently in the hands of private collectors and at risk of dispersion.

Finally, ample space will be reserved, throughout all the phases of the research, for the relationship between Buzzi and his friend Saul Steinberg, the great American designer and artist. Important, in this sense, will be the study of their correspondence (1940–1999), unpublished and still located at the Beinecke Rare Book and Manuscript Library of Yale University, which has recently been cataloged.
RESEARCH PROJECT - CODE 5

“Telecommunication and space-time propulsion: theoretical study for the technological realization in the laboratory”

Research structure: Department of Engineering and applied sciences
Duration of the grant: 24 months
Scientific Area: 02 - Physics
Academic recruitment field: 02/A2 - Theoretical physics of fundamental interactions
Academic discipline: FIS/02 - Theoretical physics, mathematical models and methods
Scientific Director: Prof. GARATTINI Remo

Aims and Objectives
The general aim of this project is the search for solutions to theoretical problems for the physics of a space-time curvature system. As specific objectives, the aim is to solve the following problems of a fundamental nature related to the device:

• Traversability
• Stability
• Width
• Energy cost.

The project includes a work plan proposed in the following section.

Work plan and methodology
The foreseen activities include tasks of a purely scientific nature (task) and not. Milestones, or important intermediate milestones, are foreseen to monitor the progress of the work (see Table 3). The tasks of the project are as follows:

• Task 1: Study of different dimensions and geometries of the Casimir source.
• Task 2: Compatibility between the different sizes and geometries of the Casimir source and the accessibility of the space-time tunnel.
• Task 3: Inclusion of meta-materials, superconductors in the Casimir source, as well as the presence of fields beyond the standard model.
• Task 4: Optimization of the tunnel and source parameters.

Methodology
The research activity of this project is typical of theoretical physics, the main phases of which are:

• problem analysis
• formulation of the physical-mathematical model
• calculation of physical observables

• comparison with the experiments, review of the results.

The methodology will be based on mathematical methods such as differential geometry, differential equations, tensor analysis, operatorial algebra, functional space and other analytical methods typical of General Relativity and Quantum Field Theory. Numerical methods are not excluded a priori but will be invoked when it is not possible to proceed with the analytical ones.
RESEARCH PROJECT - CODE 6

“"Crisis of the presence" and social catastrophes”

Research structure: Department of Letters, philosophy, communication
Duration of the grant: 24 months
Scientific Area:
Academic recruitment field: 14/D1 - Economic sociology, sociology of work, urban and environmental sociology
Academic discipline: SPS/09 - Economic sociology and sociology of work and organizations
Scientific Director: Prof. MARZANO Marco

This research project is firmly rooted in the field of organizational analysis and in particular in the study of so-called "total institutions" (prisons, nursing homes, hospitals, seminaries, colleges, etc.). The historical genesis of these institutions, their diffusion in our society, the dynamics of power and resistance and their overall social function will be observed. Particular attention will be paid to the observation of social emergency situations in which the characteristics of total institutions become particularly evident.

The research will be carried out using qualitative methods, such as participant observation and interviews, and will also include the use of covert observation and investigative inquiry.
RESEARCH PROJECT - CODE 7

“The distinctiveness of student entrepreneurship and its different manifestations: new venture creation and corporate renewal”

Research structure: Department of Management, information and production engineering
Duration of the grant: 24 months
Scientific Area: 09 - Industrial and information engineering
Academic recruitment field: 09/B3 - Business and management engineering
Academic discipline: ING-IND/35 - Business and management engineering
Scientific Director: Prof. PALEARI Stefano

The research project focuses on the distinctive characteristics of student entrepreneurship, defined as the entrepreneurial activity undertaken by university students and recent graduates. Since entrepreneurship broadly indicates exploitation of new opportunities to create value in any organizational context, the project focuses not only on business creation by students and recent graduates, but also on role they play in the succession and renewal processes of family businesses and incumbent firms. Student entrepreneurship has attracted growing interest from scholars and policy makers due to its pervasive relevance. On an individual level, it allows students to exploit their investments in higher education at a time when youth unemployment is diffused. At the firm level, student entrepreneurship facilitates innovation in incumbent companies. At the social level, student entrepreneurship has the potential to mitigate youth unemployment of highly skilled individuals, especially in STEM disciplines. More in general, student entrepreneurship has the potential to contribute to the achievement of various objectives (SDGs), such as economic growth, job creation, innovation and the reduction of inequalities.

Despite the recognized importance of the student entrepreneurship, there is a lack of a full understanding of what makes the contribution of the student entrepreneurship unique and distinctive in its many facets. To what extent do students take advantage of the years spent at university for new venture creation, succession processes and strategic renewal initiatives in incumbent companies? How does the university prepare students to do this? These questions are particularly urgent to address the challenges raised by the pandemic: on the one hand, society requires new businesses capable of solving the new needs that have emerged; on the other hand, to adapt to the ongoing changes, existing organizations require individuals with entrepreneurial skills. In addressing these research questions, the project aims to offer a deeper understanding of the antecedents, manifestations and impacts of student entrepreneurship in order to contribute more broadly to the study of entrepreneurial phenomena.
RESEARCH PROJECT - CODE 8

“Development of a Prognostics and Health Management system to support maintenance engineering enabled by Digital Twin models”

Research structure: Department of Management, information and production engineering
Duration of the grant: 24 months
Scientific Area: 09 - Industrial and information engineering
Academic recruitment field: 09/B2 - Industrial mechanical systems engineering
Academic discipline: ING-IND/17 - Industrial mechanical systems engineering
Scientific Director: Prof.ssa PEZZOTTA Giuditta

Prognostics and Health Management (PHM) consists of the monitoring, diagnosis and prognosis of failure or malfunctioning events in an industrial plant. Although PHM is a well-established discipline, the application of PHM logics and tools to production systems is challenging because industrial assets are technologically increasingly complex and operate in contexts characterised by a high level of uncertainty.

The objective of the project is to develop a solution based on PHM enabled by Digital Twin (DT) technology in order to promote real-time management of the industrial assets for greater efficiency in the provision of maintenance service processes. The implementation of DT aims at integrating the entire “data-to-knowledge” chain, allowing to process, analyse and integrate data coming from the field to extract reliable performance indicators, aimed at optimising the decision-making process underlying maintenance engineering. The DT model will be tested using the hardware and software technologies available in the CELS laboratory.
RESEARCH PROJECT - CODE 9

“Evidence Based Medicine, professional expertise and the development of a "dissident" community of practice during the COVID-19 pandemic: the case of Hydroxychloroquin in Italy”

Research structure: Department of Human and social sciences  
Duration of the grant: 24 months  
Scientific Area: 14 - Political and social sciences  
Academic recruitment field: 14/C1 – General sociology  
Academic discipline: SPS/07 - General sociology  
Scientific Director: Prof. TOMELLERI Stefano

The COVID-19 pandemic challenges the epistemological model of Evidence Based Medicine which supposes the clinical decision-making process based on objective evidence gained through validation by epistemic communities and international scientific agencies. The spread of this new form of the SARS virus, about which there was no specific previous knowledge, forced the world's leading experts and health professionals to face the new pathology metaphorically "with bare hands", without consolidated and accredited repertoire of biomedical data and clinical protocols. In this scenario, dominated by extensive debates and tensions between scientific communities and policy making agencies, practices of reconfiguring diagnostic–therapeutic processes emerged inside and outside hospital institutions, redefining scientific and clinical boundaries, and professional relationships and repertoires. In Italy, the most emblematic cases is represented by the development and accreditation of the protocol of early home treatment, an approach to the pathology around which a community of family and hospital doctors supported by clinical efficacy has been consolidating from March 2020.

The research will investigate both the social and communicative interactions, and the professional and organizational practices through which the informal health care network has self-organized and developed, becoming a sort of “dissident” community of practice, despite systemic and institutional resistance. The theoretical aspects that will be investigated lie on the border between the sociology of medicine and the social studies of science and technology. The research questions are the following:

1. Analyze the role of digital communication technologies in building and consolidating the community of practice during the pandemic crisis.  
2. Analyze the organizational implications deriving from the self-organization process of an informal professional group.  
3. Analyze the tension between the universalistic component of EBM and the experiential knowledge of clinical activity during a systemic crisis.

To investigate these dynamics, ethnographic method will be adopted, which envisages the presence of the researcher as a participating observer in the social contexts through which the community of practice has developed. Other data gathering tools will be the semi-structured interview and the collection of documentary material.