

TRANSLATION OF ANNOUNCEMENT FOR 1 RESEARCH POSITION

Decree no. 101/2022 dated 3 February 2022

Art.1 A public selection, based on qualifications, is hereby announced for 1 research position in the research field detailed in Annex 1. Full details, admission requirements and duration are listed in Annex 1.

Pursuant to Art. 7, par. 1, of the Italian Legislative Decree No. 165/2001, public administration bodies ensure gender equality and equal opportunities, as well as the absence of any form of direct or indirect discrimination on grounds of gender, age, sexual orientation, race, ethnicity, disability, religious belief and language, affecting access to employment, working conditions and economic treatment, vocational training, career advancement and workplace safety.

Art.2 Eligible candidates must be in possession of a scientific-professional curriculum which enables them to carry out research activity and meet the further requirements specified in Annex 1.

Personnel with permanent positions in Italian universities, public research and experimentation institutions, ENEA (Italian National Agency for New Technologies, Energy and Sustainable Economic Development), ASI (Italian Space Agency) or institutions awarding scientific degrees equivalent to PhD, in accordance with Art. 74, par. 4 of the Italian Presidential Decree No. 382 dated 11 July 1980, are excluded from applying.

In accordance with Art. 18 of Italian Law No. 240/10, candidates having a family relationship or other degree of kinship up to the 4th degree with the following persons are also excluded from applying:

- SISSA Professors belonging to the Area that requested the position;
- Director of SISSA;
- Secretary General of SISSA;
- Member of the Board of Directors of SISSA (please see Annex A).

The research fellowship is awarded through a private law contract which does not give any right to be employed by universities.

Art.3 The salary of the research fellowship detailed in Annex 1 is gross per year and it includes contributions to be paid by the researcher. The fellowship is paid monthly in arrears. The fiscal and social security treatment of the research fellowship is in accordance with Art. 4 of Italian Law No. 476 dated 13 August 1984 and subsequent integrations and modifications, and par. 26 et seq. of Art. 2 of Italian Law No. 335 dated 08 August 1995 and subsequent integrations and modifications.

The School arranges insurance coverage for fellowship holders against accidents in the workplace and for third-party liability while they are carrying

out their research work. The insurance premium is deducted from the fellowship.

- Art.4 The fellowship cannot be held simultaneously with other fellowships of whatever kind, except those awarded by Italian or foreign institutions with the aim of integrating the research activity of the candidate through a period spent abroad.

Provided that they fulfil their research obligations, fellowship holders are authorized to carry out professional activity as long as it is compatible with the research position, does not pose a conflict of interest and is not prejudicial to the School. Fellowship holders willing to carry out an external activity on a continuous basis shall submit a specific request, which will be evaluated by the relevant Area Council and subsequently submitted to the Academic Senate of the School for approval.

If compatible with their research duties, and following written approval by the scientist responsible for the research project, fellowship holders can participate in research assignments commissioned to SISSA by third parties (in accordance with Art. 66 of the Italian Presidential Decree No. 382/80) and benefit from the financial proceeds deriving from such activities, in accordance with the current regulations.

Fellowship holders cannot be enrolled in University Degree courses, PhD courses with scholarship or any medical school of specialization in Italy or abroad.

Government employees must be given unpaid leave for the entire duration of the fellowship.

- Art. 5 All duly submitted applications shall be evaluated by the examining board according to the following table:

Qualification	Evaluation criteria	Score
PhD	Relevance to the project	max 6 points
University Degree	Type of degree listed in Annex I - according to the degree mark	max 4 points
Published works and other research products	Relevance to the scientific disciplinary sector of the research project	max 30 points
Other post-lauream Degrees	Relevance to the scientific disciplinary sector	max 0 points
Other qualifications	Contracts, scholarships, enrollment in PhD programs, periods spent abroad, reference letters etc., if any	max 20 points
TOTAL		60 points

Candidates are eligible if they receive a minimum score of 42/60 for their qualifications and 28/40 for the interview.

To prove the equivalence of a qualification so as to meet the requirements indicated in Annex 1, candidates must refer to the list of equivalences available on the website of the Italian Ministry of Education, University and Research (<http://www.miur.gov.it/web/guest/equipollenze-ed-equiparazioni-tra-titoli-accademici-italiani1>).

Qualifications obtained abroad and declared equivalent by the Italian authority according to the current legislation will be accepted for the purposes of the selection procedure.

In the event of a foreign degree that has not already been declared equivalent in Italy according to the law (<http://www.cimea.it/it/index.aspx>), the examining board may admit the candidate upon evaluation of his/her study plan and its consistency with the scientific sectors specified in Annex 1.

The qualifications evaluation criteria, which can be set by the examining board according to internationally recognised parameters, are consistency with the subject of the research fellowship, relevance and quality of the following qualifications and activities:

- proven research activity;
- academic qualifications (University Degree, PhD, specialization degrees or attendance certificates of other postgraduate specialization courses held in Italy or abroad);
- other qualifications.

For foreign degrees that have not already been declared equivalent in Italy according to the law, the candidate must attach a translation of the study plan into English and/or Italian.

The scientific qualifications must be relevant to the Area referred to in this announcement or to interdisciplinary subjects relevant to the areas involved.

Art. 6 The examining board is appointed by decree of the Director of SISSA, upon a proposal of the relevant Area Council. It comprises a minimum of three and a maximum of five members, of which one shall act as President and one as Secretary. The members of the examining board shall be chosen among professors and researchers of SISSA, other research institutions and universities, or among experts in the subjects referred to in this announcement. A deputy can be appointed for each member.

The examining board evaluates the qualifications according to the criteria indicated above (see the Table in Art. 5).

At the end of the evaluations the examining board will draw up a report, including the evaluation criteria, the total mark obtained by each candidate

and a classification list of the eligible candidates. The selection procedure and the ranking are approved by Directorial Decree.

The first eligible candidate will undertake a research contract with SISSA in accordance with Italian Law No. 240/10, Art. 22.

Being in the ranking does not give any right in other selection procedures.

Art.7 **Under penalty of exclusion, the application** for this selection procedure, along with relevant qualifications and scientific publications, **shall be submitted online through the electronic application accessible at the following address:** <https://pica.cineca.it/sissa/ar-fe-mate-4-2022>.

A valid email address is required for the registration process.

Applicants shall upload all personal and professional data as requested by the application procedure; all documents must be uploaded in .pdf format.

Each applicant can produce a maximum of no. 30 publications and a maximum of no. 30 titles and qualifications. Each file cannot exceed 30MB.

All fields in the online application form must be filled out. Under penalty of exclusion, the application must contain:

- a curriculum vitae with a complete list of the candidate's scientific and professional activities;
- a valid ID of the candidate, to be uploaded in electronic format;

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

Prior to final submission, and within the deadline for the submission of applications, 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 deadline will not be accepted by the system, as the online application procedure won't be accessible.

The online application and submission procedure shall be completed **by 7 March 2022 no later than 1:00 pm CET.**

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

- **with the digital signature of the candidate**, by means of smart card, USB token or remote digital signature allowing the applicant to digitally sign electronic documents with a software installed on a PC or through a web portal for Remote Signature, provided by a Certification Service Provider (CSP). Candidates with a smart card or a USB token for digital signature should check the compatibility with the Digital Signature system embedded in our server. In case of compatibility, candidates shall sign the application on the server (i.e. ConFirma);
- **holders of server-incompatible Digital Signature and holders of Remote Digital Signature** who can access a web portal for digitally signing electronic documents shall save the .pdf file generated by the system on their PC. The .pdf file shall not be modified in any way, and it shall be digitally signed in CAdES format: the system will generate a

- file with .p7m extension. The candidate shall upload the .p7m file on the system. No changes are to be made to the file by candidates before the Digital Signature, on pain of exclusion from the selection procedure;
- **in case the two above-mentioned options do not apply**, candidates shall save the .pdf file generated by the system on their PC. The .pdf file shall not be modified in any way, on pain of exclusion from the selection procedure. It shall be printed out, signed on the last page, scanned in .pdf format and uploaded on the system.

For any technical issue regarding the application, candidates may send an email to sisa@cineca.it.

The School will verify that all the statements made in the application and accompanying documentation comply with the provisions of the Italian Presidential Decree No. 445/2000.

INTERVIEW CALENDAR:

Date and time of the interviews and the list of admitted candidates will be published on SISSA website on 11 March 2022 by 1:00 pm (CET). Interviews will be held online.

At the interview candidates must prove their identity showing a valid ID or passport.

The notice of the interview calendar acts as an official notification. Candidates are required to collect at their own expenses all documents and publications they have submitted within 3 months from the selection procedure. After this time period, SISSA cannot be held responsible in any way for these documents and publications.

Art.8 After a budget verification has been carried out, the selected candidate will be formally notified of the award of the research fellowship.

Within 30 days from the start of the research activity at SISSA, Italian and EU candidates and non-EU citizens resident in Italy will have to submit a valid ID and fill out the following documents:

- 1) affidavit attesting birth, citizenship, place of residence and Italian tax code of the applicant;
- 2) affidavit attesting the possession of a University Degree and a PhD (only if required by the announcement);

Non-EU citizens authorized to sojourn in Italy owing to conventions between Italy and their own country have to submit the same above-mentioned documents.

Non-EU citizens regularly sojourning in Italy may submit an affidavit according to articles 46 and 47 of Presidential Decree No. 445/2000 only for personal data and events which can be certified and attested by public Italian authorities.

In any other case, the information requested in points 1) and 2) of this article must be notified by means of an affidavit and plain copies of the relevant documents within 30 days from the beginning of the research activity at SISSA. However, within 60 days from the beginning of their research activity winners have to submit certificates and declarations issued by the foreign competent authorities, accompanied by an Italian translation authenticated by the Italian Consulate abroad. The School reserves the right to verify all affidavits submitted.

Should the winner refuse the position, not accept it or fail to submit the above-mentioned documents in time, the research fellowship may be offered to the next eligible candidate in the ranking, following the authorization granted by the Director, at the express request of the Area Coordinator or the scientist responsible for the research activity.

The starting date of the fellowship shall be agreed with the Area Coordinator or with the scientist responsible for the research project.

Art.9 Fellowship holders undertake to carry out the research activity as foreseen in the contract and in accordance with the research programs of the Area. The research activity is carried out within the research project for which the applicant has been selected. Every year fellowship holders must submit a report to the Area Council on the activity carried out in the previous year. In the event of non-compliance, reported by the scientist responsible for the research project, the grant can be suspended. In case of major non-compliance, the contract can be terminated by decision of the School Senate and upon a reasoned proposal of the Area Council, having heard the researcher concerned.

The contract is automatically resolved in the following cases:

- unjustified delay or failure to start the research activity;
- unjustified suspension of the activity for more than 15 days;
- breach of the incompatibilities established by the current Rules for the awarding of research fellowships in SISSA;
- negative evaluation of the research activity by the Area Council.

An authorized absence of up to 30 days a year does not require the fellowship to be suspended or the absence to be made up at a later date.

Fellowship holders wishing to resign must give a notice of at least 30 days, in which case no penalty shall be applied by SISSA. Failure to do so shall result in a penalty involving the recovery or the failure to pay the salary for the period of notice not given. The 30 days' notice shall not be applied during the first 30 days of research activity.

SISSA shall reserve the right to terminate the contract if the external funding becomes unavailable. In this case, SISSA shall give the fellowship holder at least a 60 days' notice. Failure to do so shall result in the payment to the research fellowship holder of an amount equal to the period of notice not given.

Art.10 The research fellowship, including the renewals, may be granted to the same researcher for no more than 6 years. The time during which the candidate was holder of a research fellowship and enrolled in PhD courses (without scholarship) is not taken into account for a period not exceeding the legal duration of the PhD program.

In accordance with the Italian Law No. 240/10, candidates cannot be awarded research fellowships or temporary researcher contracts with public, private or online universities, nor with other institutions as specified by Art. 1 of Law No. 240/10 for a period exceeding 12 years, whether consecutive or not. To this end, the periods of absence due to maternity leave or state of illness are not taken into account.

The renewal of the research fellowship is decided by the School Academic Senate and, as for the financial coverage, by the Board of Directors, following an evaluation of the research activity carried out by the research fellow and the progress of the research program, upon request of the scientist responsible for the research fellowship.

Art.11 All matters regarding data processing and protection are in accordance with the Italian Legislative Decree No. 196/2003 dated 30 June 2003, as amended by Legislative Decree No. 101 dated 10 August 2018, that transposes Regulation (EU) 2016/679 (GDPR). All data provided to this administration will be processed for the sole purposes connected with and instrumental to the selection procedure and the eventual drawing up and management of the contract.

THE DIRECTOR
Prof. Andrea Romanino
(Italian version signed digitally)

ANNEX 1 MATHEMATICS AREA

Public selection based on qualifications and interview

Research title: "Effective theories in quantum mechanics"

Fields of the research activity: Many-body quantum dynamics, derivation of effective evolution equations in suitable scaling limits. Analysis of the low energy properties of interacting fermionic systems through rigorous bosonization techniques. Study of the transport properties of semimetals and topological insulators, via rigorous renormalization group.

Scientist responsible for the research activity: Prof. Marcello Porta;
Members of the research group: Matteo Gallone, Rafael Leon Greenblatt, Markus Lange, Giovanna Marcelli.

Area 01 - Mathematics

Public selection sector: 01/A4 – MATHEMATICAL PHYSICS;

Relevant academic scientific sector: MAT/07 – MATHEMATICAL PHYSICS;

Duration of the research fellowship: 12 months

Renewable: yes

Gross remuneration per year: €30.120,00

Requisites for the admission to the selection procedure:

University degree: Master's degree in Mathematics, Physics or Engineering.

Doctoral degree: PhD in Mathematics.

Proven experience in one or more of the following fields: analytic methods of quantum mechanics; rigorous statistical mechanics, quantum lattice models; constructive techniques in field theory, renormalization group.

Evaluation criteria:

PhD: up to 6 points

University degree: up to 4 points

Published works and other research products: up to 30 points

Further post-lauream diplomas: 0 points

Other titles: up to 20 points

The date and time of the interviews and the list of admitted candidates will be published on SISSA website on 11 March 2022 by 1:00 pm (CET). Interviews will be held online.

Gross total cost of the research fellowship will be funded by the Project: R_H2020_StG_ERC_MATE_Porta_0608 - H2020-ERC-2018-STG-802901 "MaMBoQ". Titolo progetto "Macroscopic Behavior of Many-Body Quantum Systems" - Prof. M. Porta, nel cui esclusivo interesse verrà svolta l'attività di ricerca (Codifica UGOV del progetto: R_H2020_StG_ERC_MATE_Porta_0608; CUP: G94I19001450006; Attività / Unità lavoro: costi rendicontabili; Acronimo del

progetto: MaMBoQ; Titolo completo del progetto: Macroscopic Behavior of Many-Body Quantum Systems; Ente finanziatore: Commissione Europea; Canale di finanziamento: ERC Starting Grant; Codici identificativi del progetto: Grant Agreement n. 802901).

A contribution towards relocation expenses in Trieste is envisioned for the successful candidate if resident abroad (in the EU or outside the EU). The costs will be bared by the project: R_H2020_StG_ERC_MATE_Porta_0608 - H2020-ERC-2018-STG-802901 "MaMBoQ". Titolo progetto "Macroscopic Behavior of Many-Body Quantum Systems" - Prof. M. Porta (Codifica UGOV del progetto: R_H2020_StG_ERC_MATE_Porta_0608; CUP: G94I19001450006; Attività / Unità lavoro: overheads).

Position approved by:
Mathematics Area Council dated 12 January 2022
Academic Senate of the School dated 25 January 2022
Board of Directors of the School dated 01 February 2022