POLITECNICO
DI TORINO

Area Gestione Didattica
Segreteria Didattica Ingegneria

Call for applications for the international major of the Master's degree programme in Physics of Complex Systems (Fisica dei sistemi complessi) a.y. 2020-2021

(Annex no.1 to Rector's decree n. 304 of 06/04/2020)

Available at: https://didattica.polito.it/bacheca/area_ing2/
https://didattica.polito.it/lauree_magistrali/2020/en/home

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1 Overview

The international major of the Master's degree programme in Physics of Complex Systems is entirely taught in English and is organized as follows:

- One semester of classes held in Trieste at SISSA (Scuola Internazionale di Studi Superiori Avanzati) and ICTP (the Abdus Salam International Center for Theoretical Physics);
- One semester of classes held in Torino at Politecnico di Torino;
- One semester of classes held in Paris at the university consortium Paris Diderot (Paris 7), Paris-Sud (Paris 11)
- The forth semester is dedicated to a multidisciplinary school (Spring School) and to the thesis composition.

Further information is available at:
https://didattica.polito.it/laurea_magistrale/pcs/en/welcome

2 Number of places available and mobility scholarships

There are totally 20 student places available for the 2019/2020 academic year.
Admissions are on a competitive basis among the following categories of applicants:

- Quota students: non-EU students residing outside Italy with a non-Italian educational qualification (within the limit of 2 quota places especially reserved to them)
- European Union students: Italian citizens, or other EU nationals
- Equivalent students[1]:

3 Admissions

In order to be admitted to the international major of the Master's degree programme in Physics of Complex Systems (Fisica dei sistemi complessi) applicants must meet the requirements listed in article 4 (Requirements) and they are assessed based on the following criteria:

- academic achievement (weighted average grade of Bachelor's exams);

1 Equivalent students are:

- students from Norway, Iceland, Lichtenstein, Switzerland and San Marino
- non-EU nationals legally residing in Italy with a valid residence permit for study, work or family reasons.
- political refugees (political asylum, humanitarian asylum, religious reasons);
- staff members of Foreign Diplomatic Missions (Embassies/Consulates) and International Organizations based in Italy, legally accredited to the Italian Government or to the Holy See (including their dependants: spouse and children);
- non-EU nationals legally residing in Italy or diplomats who have an Italian high school diploma obtained in Italy or abroad (i.e. diplomas issued by Italians schools abroad or by international schools in Italy or abroad, subject to bilateral agreements or particular rules for the recognition of diplomas that meet the general requirements for entry for study purposes - see art. 26 Law 189 of July 30th 2002).

- an oral test to assess applicants' competence in the subjects of the Bachelor's degree programme, with a special focus on Physics and Mathematics.

4 Requirements

4.1 Curricular requirements

The curricular requirements are:

- Bachelor's degree or university diploma obtained after a period of study of 3 years;
- competencies and prior learning acquired by applicants during their previous academic path, expressed in credits (ECTS), as further below specified:
  - a minimum of 40 credits (ECTS) in core subjects: CHIM/07, FIS/01, FIS/03, MAT/02, MAT/03, MAT/05
  - a minimum of 60 credits in the scientific disciplinary fields of specific and related subjects: CHIM/07, FIS/01, FIS/02, FIS/03, FIS/04, ING-IND/31, ING-INF/01, ING-INF/02, ING-INF/05, ING-INF/07, MAT/06, MAT/07, MAT/08, ICAR/01

Applicants who do not obtain their Bachelor's degree by the date of the application submission can apply to this programme provided that they earn at least **100 credits** (ECTS) by **15th May 2020**.

Applicants must have an English language certificate (B2 level) according to the Common European Framework of Reference for Languages: Learning, Teaching, Assessment (CEFR) by 20th September 2019. During a transitional period, in order to assess their knowledge of English (B2 level), Politecnico di Torino takes into consideration the following table of certificates accepted in substitution of **IELTS 5.5** https://didattica.polito.it/cla/en/certificates (Section "B2 English language level during a transitional period").

4.2 Assessment of average grade

Applicants' background is assessed based on their weighted average grade(1).

Applicants must sit an oral test. Admissions to the Master's degree programme in "Physics of Complex Systems" are governed by the same rules which apply to all Master's degree programmes in Engineering at Politecnico di Torino.

- other qualifications awarded by a non-Italian institution and considered valid;

Applicants from Politecnico di Torino

Applications are open to applicants from Politecnico di Torino who find themselves in the following circumstances:

- students who completed their Bachelor's degree programme in 4 years or less, regardless of their average grade;
- students who completed their Bachelor's degree programme in more than 4 years but less than 5 years, with a weighted average grade equal to or greater than 21/30.

- students who completed their Bachelor's degree programme in more than 5 years, with a weighted average grade equal to or greater than 24/30.

The weighted average grade[(1)] is calculated on all accrued course credits graded on a scale of 30 which count towards the achievement of the Bachelor's degree, after having removed the worst 28 credits.

*[(1)] The weighted average is calculated as follows: ∑ (grade*credits) / ∑ credits*

Applicants from other universities

Applicants from other Italian universities must have a weighted average grade equal to or greater than 24/30, regardless of the number of years it took them to graduate.

4.3 Applicants with a non-Italian Bachelor's degree

In order to be eligible to apply, applicants need to:

- have qualifications awarded by a non-Italian institution and considered valid (http://international.polito.it/admission/prospective_students/master_of_science/2020_21/admission_requirements);

- meet the curricular and quality requirements (average grade) of the Master's degree programme

- have an English language certificate (B2 level) according to the Common European Framework of Reference for Languages: Learning, Teaching, Assessment (CEFR)

During a transitional period, in order to assess their knowledge of English (B2 level), Politecnico di Torino takes into consideration the following table of certificates accepted in substitution of **IELTS 5.5** https://didattica.polito.it/cla/en/certificates

5 Application submission

5.1 Graduates/ Graduands from other universities

To apply to the programme:

- fill in the online application form. Applicants who have more than one Bachelor's degree must specify which degree they want to present for evaluation and admission to the programme.
- Select the Master's degree programme in Physics of Complex Systems (international major) from the "**Select your programme**" section
- Enter the information on their English language certificate in the "Language skills" section. The verification of the English language certificate is automatic for IELTs and Cambridge certificates.

- Applicants who have an IELTS certificate must enter their TFR number (written on the certificate itself or in the message they received when the results were published).
- Applicants who have a Cambridge certificate must enter their Candidate's ID number.

In both cases it is not necessary to upload a copy of the certificate.

- Applicants who have an English certificate other than IELTS or Cambridge must upload a scanned copy of their certificate to the "Attachments" section.

PLEASE NOTE: applicants are allowed to apply to the programme even if they do not have an English language certificate on the date of application submission.

- Submit the application from the "Save and submit" section
- Pay a fee (100.00 Euro) for the evaluation of previous academic records from the "Evaluations" section (this amount will be subtracted from the tuition fees if the applicant enrols in the programme in the academic year for which he/she submitted the application; otherwise, the fee will not be reimbursed). Payment methods are the following:

a. Credit cards (or other payment methods available on the PagoPA platform) generating an immediate payment;
b. Pre-printed notice of payment (MAV on the PagoPA platform), generating a deferred payment.

Applicants who pay using the method illustrated under letter b) must go back to the Apply@polito platform and specify the payment date (with a self-declaration). Failure to do so entails that their payment is not valid.

5.2 Graduates/graduands from Politecnico di Torino

To apply to the programme:

- Log in to the Apply@polito platform from their personal page of the Teaching Portal. Applicants who have more than one Bachelor's degree must specify which degree they want to present for evaluation and admission to the programme.
- Select the Master's degree programme in Physics of Complex Systems (international major) from the "Select your programme" section
- Submit the application from the "Save and submit section"

5.3 Graduates/graduands with a non-Italian Bachelor's degree

To apply to the programme:

- complete the online application form https://didattica.polito.it/inte/en/apply_msc_step1
- attach the required documents: https://didattica.polito.it/inte/en/apply_msc_step1_docs

Applications are due on or before:

- **31st May 2020** at **2 p.m**. for students with an Italian Bachelor's degree
- **4th May 2020** at **2 p.m.** for students with a non-Italian Bachelor's degree

6 Interview

Interviews will take place on **17th,18th and 19th June 2020**.
Interviews will take place in the Perucca room at the Department of Applied Sciences and Technology (DISAT) of Politecnico di Torino. Applicants will receive the invitation to the interview by e-mail.
For justified reasons or in case the current Covid19 Emergency persists ,when previously agreed with the Programme Coordinator, applicants may have a remote interview.
For **quota students** the interviews (remote) will take place on **20th May 2020**

7 Evaluation criteria and ranking lists

7.1 Academic achievement

Applicants with an Italian Bachelor's degree
Applicants can be assigned up to a maximum of 60 points for their academic achievement.
Applicants with the highest weighted average grade(1) on **15th May 2020** are assigned up to 60 points, while applicants with lower average grades are assigned proportional scores.
For the purpose of this calculation:

- Politecnico takes into account the courses that have been validated from previous academic paths;
- Politecnico does not take into account the courses that students advanced from their Master's degree programme.

Applicants with a non-Italian Bachelor's degree
The Evaluation Committee evaluates the academic achievement of applicants with a non-Italian qualification. The Committee verifies if these applicants meet the quality requirements (average grade) and know the contents required for admission to all all Politecnico Master's degree programmes (maximum 60 points).

(1) The weighted average is calculated as follows: ∑ (grade*credits) / ∑ credits

7.2 Interview

The interview maximum score is 40 points. Applicants are considered eligible for admission and included in the merit ranking list if they get a score equal to or greater than 24 points in the oral interview.

7.3 Ranking lists

The overall score is expressed on a scale of 100 points.

Politecnico will draw up two separate ranking lists:

- one ranking list for Italian, EU and equivalent applicants;
- one ranking list for non-EU quota students.

Student places will be assigned in compliance with the provisions referred to in article 2.

8 Publication of the ranking lists

The ranking lists will be published on the News Board of the Master's degree programmes and in the News Board (Master's Italian Students):
https://didattica.polito.it/bacheca/area_ing2/
https://didattica.polito.it/lauree_magistrali/2020/en/home

The ranking list classifies the applicants in the following categories:
ADMITTED APPLICANT: refers to the applicants who are admitted to the programme and are actually offered a place in the programme.
ELIGIBLE APPLICANT: refers to the applicants who qualify for admission but are not offered a place because they are not in the top 20 positions of the ranking list. They may be offered a place if some admitted students do not enrol in the programme.
NOT ADMITTED APPLICANT: refers to the applicants who have not reached the minimum score for admission to the programme.

Admitted and eligible applicants must confirm their intention to enrol in the programme on the Apply@polito platform in compliance with the deadlines that will be published together with the ranking list. **Failure to do so entails permanent exclusion from the programme.**

After receiving the above-mentioned confirmations, Politecnico di Torino will publish the final ranking list with the names of the students who are admitted to the programme. These students must reserve their place by paying the first instalment of their tuition fees before the deadline that will be announced at a later stage. The amount of the first instalment will be established in the Tuition Fee Guide for a.y. 2020/2021 which is going to be approved by the university bodies at a later date. The amount paid will be deducted by the overall amount of the tuition fees upon enrolment but will not be refunded under any circumstances. Applicants from other universities who paid 100 Euro for the submission of their application must pay the difference between the first instalment of their tuition fees and the application submission fee.
Payment methods are the following:

c. Credit cards (or other payment methods available on the PagoPA platform) generating an immediate payment;
d. Pre-printed notice of payment (MAV on the PagoPA platform), generating a deferred payment.

Students who pay using the method illustrated under letter b) must go back to the Apply@polito platform and specify the payment date (with a self-declaration). Failure to do so entails that their payment is not valid.
Should the self-declaration be found false or incorrect, the applicant will lose the right to enrol in the programme for a.y. 2020/2021.

8.1 Update of the ranking lists

When all applicants included in one ranking list have been offered a place in the programme, possible residual places will be allocated to the applicants included in the other ranking list.

9 Enrolment process

9.1 Applicants with an Italian Bachelor's degree

The enrolment process has two phases and is considered completed upon conclusion of both phases. Failure to complete both phases entails the cancellation of enrolment.

First phase - online enrolment:

Applicants need to enrol online on the Apply@polito platform from the "Evaluations" section. All applicants with an Italian Bachelor's degree must enrol by:

- **27th November 2020 :** candidates from Politecnico (graduated within October 2020 graduation session) and candidates form other Italian Universities
- **31st March 2021:** candidates from Politecnico di Torino who have advanced Master's courses.

Applicants who do not meet this deadline will be excluded from the enrolment process.

Second phase – enrolment at the Office of the University Registrar:

To complete the enrolment process, applicants must go to the Office of the University Registrar in person. During this phase of the enrolment, process applicants will be identified and given their Smart Card of the Sistema Universitario Piemontese.
Applicants must present the following original documents:

- Identification document
- English language certificate, if required.

Applicants must complete the enrolment second phase not later than **30th April 2020**. Applicants who do not meet these deadlines will be excluded from the enrolment process.

9.2 Special instructions for students with a non-Italian Bachelor's degree

The enrolment process has two phases and is considered completed upon conclusion of both phases. Failure to complete both phases entails the cancellation of enrolment.

- **First phase - online enrolment**: applicants with a non-Italian Bachelor's degree must reserve their place in accordance with the terms of Article 8 "Publication of the ranking list". Applicants who fail to do so will be excluded from the enrolment process.

- **Second phase – enrolment** at the Incoming Mobility Office (International Affairs Department) and at the Office of the University Registrar
  To complete the second phase of the enrolment process (deadline: **16th October 2020**), applicants with a non-Italian Bachelor's degree MUST go to the Incoming Mobility Office –

International Affairs Department and they must present the original documents listed at http://international.polito.it/admission/prospective_students/master_of_science/2020_21/enrolment for verification purposes.
Subsequently, these applicants must go to the Office of the University Registrar to complete the second phase of the enrolment process (identification and Smart Card delivery). The deadline is **16th October 2020**.

10 Mobility scholarships

Mobility scholarships are offered to all students who are admitted to the international major of the Master's degree programme in Physics of Complex Systems (Fisica dei Sistemi Complessi), provided that they complete their enrolment procedure by **31st March 2021** (for students with an Italian Bachelor's degree) or **16th October 2020** (for students with a non-Italian Bachelor's degree).
After this date, admitted students must sign a specific contract following the instructions sent by e-mail by the Mobility Office-Outgoing. By signing this contract, every student confirms his/her participation in the mobility programme and accepts the scholarship and its terms of payment.
All admitted students receive a mobility scholarship with the following monthly amounts:

ISEE/ISEEU	**TOTAL MONTHLY SCHOLARSHIP AMOUNT FOR MOBILITY TO FRENCH PARTNERS** **Net amount**	**OF WHICH FUNDED BY THE ERASMUS+ PROGRAMME +**
ISEE/ISEEU≤ 13.000	€ 800,00	**€ 250,00**
13.000 <ISEE/ISEEU≤21.000	€ 750,00	
21.000 < ISEE/ISEEU≤ 26.000	€ 700,00	
26.000 <ISEE/ISEEU≤ 30.000	€ 650,00	
30.000 <ISEE/ISEEU≤ 40.000	€ 600,00	
40.000 <ISEE/ISEEU≤ 50.000	€ 550,00	
ISEE/ISEEU> 50.000	€ 500,00	

Failure to stipulate this contract by the deadlines entails permanent renunciation of the place.

11 Exclusions

Applicants included in the following categories will lose their right to be admitted to the Master's degree programme in Physics of Complex Systems (Fisica dei sistemi complessi):

- Politecnico students who do not have the requirements to advance the courses belonging to their Master's degree programme by the end of the September 2020 examination sessions;
- Students with a non-Italian Bachelor's degree who:

  - do not have the required language certificate when they apply online on the Apply@polito platform - apply@polito service;
  - do not meet the specific requirements and do not present the documents listed at https://didattica.polito.it/inte/it/apply_lm_step1 https://didattica.polito.it/inte/it/apply_lm_step1_docs http://international.polito.it/it/ammissione/futuri_studenti/laurea_magistrale/2020_21/immatricolazione
  - do not complete the enrolment process by **16th October 2020**
- Politecnico students who do not graduate by the March/April 2021 Graduation period;
- Politecnico students who graduate by the March/April 2021 Graduation period but fail to complete their enrolment procedure by **31st March 2021**;
- students from other universities who do not graduate, do not obtain the language certification required and do not enrol in the Master's degree programme by **27th November 2020**;

Applicants with an Italian Bachelor's degree who are not admitted to the international major of the Master's degree programme in Physics of Complex Systems (Fisica dei sistemi complessi) can be considered for admission to the national major of the same Master's degree programme or for admission to other Master's degree programmes offered by Politecnico di Torino, if they reach the 140-credit threshold, as provided for by general admission rules.

If students admitted to the programme are unable to go to France during their second year for their mobility period due to justified reasons, they can continue their studies in Italy in the national major of the Master's degree programme in Physics of Complex Systems. In this case they lose their right to receive the mobility scholarship.

12 Contacts

For further information about the programme contents please contact:
Prof. Alfredo Braunstein
Tel. 011-0907332
e-mail: pcs@polito.it

For further information on application submission, please send your inquiries through the "Ticketing" service, available on the Apply personal page, by selecting the topic named "Admissions to Master's degree programmes".

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