



**ANNEX 1 to the Call for Admission to n. 3 PhD positions for XL cycle a.y. 2024/2025 –
Information on courses and selection methods**

FISICA – Curriculum Physics of Fundamental Interactions	2
INGEGNERIA INDUSTRIALE E DELL'INFORMAZIONE (DOTTORATO INDUSTRIALE) - curriculum Ingegneria industriale	6
SISTEMA TERRA E CAMBIAMENTI GLOBALI	77
STORIA, ARTI E LINGUAGGI NELL'EUROPA ANTICA E MODERNA.....	9

FISICA - Curriculum Physics of Fundamental Interactions

Codice corso	DR206
Duration	3 years
Department	Fisica e geologia
Position funded by Dipartimento di Fisica e geologia upon INFN fundings	1 for the research “TCAD design and optimization of silicon sensors for extreme radiation hard environments” “Progetto e ottimizzazione mediante strumenti TCAD di rivelatori in silicio per applicazioni in ambienti soggetti a radiazioni estreme”
curricula	PHYSICS OF FUNDAMENTAL INTERACTIONS
In collaboration with	Istituto Nazionale di Fisica Nucleare (INFN)
Research project	YES, mandatory
Coordinator	Prof. Paciaroni Alessandro

Degrees required for admission:

ALL among

- Specialist degree pursuant to D.M. 509/1999
- Master's degree pursuant to D.M. 270/2004
- Pre-reform degree (before D.M. 509/1999)
- Foreign master degree

It is recommended to consult attachment 2, paying particular attention to the documentation to be attached in relation to the qualification required for admission (4. DOCUMENTATION TO BE ATTACHED).

Selection procedure:

The selection procedure will be carried out as follows:

Evaluation of qualifications and interview (scoring out of 60: 30 + 30)

The evaluation of qualifications, in addition to the university education, as well as any additional educational paths and professional and research experiences and any scientific publications, will also involve the preparation by the candidates of a three-year research project of their choice, aimed exclusively at assessing the candidate on one of the themes of the curricula in which the doctorate is

structured.

Minimum score required in the evaluation of qualifications: 10/30

Before the interview, the list of candidates admitted to the interview, along with the scores obtained in the evaluation of qualifications, will be published on the University's website at <https://www.unipg.it/didattica/percorsi-post-laurea/dottorati-di-ricerca/bandi-avvisi-e-modulistica>. Candidates who do not reach the minimum score in the evaluation of qualifications will not be admitted to the interview.

The interview will be conducted in person, with the option to choose remote mode if requested.

The interview will cover the themes of the doctorate, and will also aim to verify the research aptitude, willingness to undertake experiences abroad, and the scientific interests of the candidate. Candidates are required to prepare a research project proposal to be presented along with the application for the competition, which they will illustrate during the interview. The interview may, at the candidate's choice, be conducted in English.

For interviews conducted in Italian, an assessment of English language proficiency is included.

Minimum score to pass the interview: 20/30.

Qualification is achieved with an overall score of 30/60 or higher.

Evaluation of qualifications:

- **University education, up to a maximum of 17 points, recognizing:**
 - Degree score: up to a maximum of 15 points, as attributed below:
 - 110/110 cum laude: 15 points
 - 110/110: 14 points
 - 109/110: 13 points
 - 108/110: 12 points
 - 107/110: 11 points
 - 106/110: 10 points
 - 105/110: 9 points
 - 104/110: 8 points
 - 103/110: 7 points
 - 102/110: 6 points
 - 101/110: 5 points
 - 100/110: 4 points
 - 99/110: 3 points
 - Below 99/110: 0 points

For candidates who obtain the required degree after the application deadline, the GPA of exams taken will be evaluated, recognizing up to a maximum of 14 points, according to the following scheme:

- GPA above 29: 14 points
- GPA above 28: 13 points
- GPA above 27: 11 points
- GPA above 26: 9 points

- GPA above 25: 6 points
- GPA above 24: 2 points
- GPA 24 or below: 0 points

Thesis, up to a maximum of 2 points, for the relevance of the thesis to the research areas of the PhD course, as indicated on the website

<https://www.fisgeo.unipg.it/fisgejo/index.php/it/phd/phd-physics-new.html>, recognizing:

- Completely relevant thesis: 2 points
- Partially relevant thesis: 1 point
- Non-relevant thesis: 0 points

For candidates who obtain the required degree after the application deadline, the thesis will be evaluated according to the criteria above, only if the final version with the advisor's signature is provided.

Additional educational paths and professional and research experiences, up to a maximum of 3 points, recognizing:

- For each period of overseas training and internship of at least 30 continuous days: **0.5 points**
- For each professional experience in teaching (tutoring, support teaching activities): **0.5 points**
- For each professional experience of at least six months in scientific research (research grants, scholarships, and/or contracts): **1 point**
- For each additional educational path (second level university master's degree, specialization diploma, professional qualification): **1 point**
- For each contribution to congresses, schools, and workshops or invited seminars: **0.4 points**
- For each other professional, teaching, and dissemination experience (e.g., training for teachers, dissemination conferences, participation in congresses, schools, and workshops without contribution, international recognition, etc.): **0.2 points**

Relevant publications, up to a maximum of 3 points, recognizing:

- For each publication in a high-quality peer-reviewed journal, in terms of scientific depth and editorial relevance: **3 points**
- For each publication in a good-quality peer-reviewed journal, in terms of scientific depth and editorial relevance: **2 points**
- For each publication in a sufficient-quality peer-reviewed journal, in terms of scientific depth and editorial relevance: **1 point**
- For each proceedings of congresses and workshops: **1 point**

Research project, up to a maximum of 7 points, recognizing:

- For an excellent quality research project, in terms of scientific depth and research aptitude: **7 points**
 - For a very good quality research project, in terms of scientific depth and research aptitude: **6 points**
 - For a good/very good quality research project, in terms of scientific depth and research aptitude: **5 points**
 - For a good quality research project, in terms of scientific depth and research aptitude: **4 points**

- For a sufficient/good quality research project, in terms of scientific depth and research aptitude: **3 points**
- For a sufficient quality research project, in terms of scientific depth and research aptitude: **2 points**

Evaluation of the interview:

Criteria for evaluating the interview: knowledge of the subject; clarity of presentation; research aptitude, willingness to undertake experiences abroad, and the candidate's scientific interests. Specifically, scores will be assigned based on the following overall evaluative scale, by applying the criteria mentioned above:

- 30 points: excellent performance according to the criteria mentioned above
- 29 points: almost excellent performance according to the criteria mentioned above
- 28 points: more than distinguished performance according to the criteria mentioned above
- 27 points: distinguished performance according to the criteria mentioned above
- 26 points: almost distinguished performance according to the criteria mentioned above
- 25 points: more than good performance according to the criteria mentioned above
- 24 points: good performance according to the criteria mentioned above
- 23 points: almost good performance according to the criteria mentioned above
- 22 points: fully sufficient performance according to the criteria mentioned above
- 21 points: more than sufficient performance according to the criteria mentioned above
- 20 points: sufficient performance according to the criteria mentioned above
- 19 points: insufficient performance according to the criteria mentioned above
- 18 points: gravely insufficient performance according to the criteria mentioned above
- 17 points: poor performance according to the criteria mentioned above
- 16 points: gravely poor performance according to the criteria mentioned above
- 15 points: lacking performance according to the criteria mentioned above
- 14 points: gravely lacking performance according to the criteria mentioned above

Interview Schedule:

On September 27, 2024, an announcement will be published on the University's website at <https://www.unipg.it/didattica/percorsi-post-laurea/dottorati-di-ricerca/bandi-avvisi-e-modulistica> and on the University's online notice board, detailing the dates and times of convocations or any other communication concerning this selection. This schedule serves as formal notification, and no personal communications will be sent in this regard. Failure to appear for the selection tests (or failure to connect on the scheduled day and time in the case of remote mode) will be considered an implicit waiver

**INGEGNERIA INDUSTRIALE E DELL'INFORMAZIONE (DOTTORATO INDUSTRIALE) -
curriculum Ingegneria industriale**

Codice corso	DR207
Duration	3 years
Department	Ingegneria
Position funded by ASI with activation subject to the completion of the agreement	1 for the research “Development and validation of a robotic handling system for nanosatellites: from the feasibility study to experimental validation tests” “Sviluppo e validazione di un sistema di manipolazione robotica per Nanosatelliti: dallo studio di fattibilità ai test di validazione sperimentale”
Research project	YES, mandatory
Coordinator	Prof. Liotta Giuseppe

Degrees required for admission:

ALL among

- Specialist degree pursuant to D.M. 509/1999
- Master's degree pursuant to D.M. 270/2004
- Pre-reform degree (before D.M. 509/1999)
- Foreign master degree

It is recommended to consult attachment 2, paying particular attention to the documentation to be attached in relation to the qualification required for admission (4. DOCUMENTATION TO BE ATTACHED).

Selection procedure:

Evaluation of qualifications (out of thirty 30)

Minimum total score from which candidates are deemed suitable: 18/30

Evaluation of qualifications:

The evaluation of qualifications concerns the university educational path, any further educational paths, professional and research experiences, and any scientific publications. The evaluation will also consider the candidate's development of a research project to be carried out over the three years on one of the themes relevant to the Course indicated in the selection notice and written in English.

Criteria for evaluating qualifications:

University educational path: up to a maximum of 12 points, recognizing:

- Degree grade: up to a maximum of 8 points, as follows:
 - Grade of 110/110 with honors: 8 points
 - Grade of 110/110: 7 points
 - Grade of 109/110: 6 points
 - Grade of 108/110: 5 points
 - Grade of 107/110: 4 points
 - Grade of 106/110: 3 points
 - Grade of 104/110 to 105/110: 2 points
 - Grade of 100/110 to 103/110: 1 point
 - Grade below 100/110: 0 points

For candidates obtaining the required title for admission after the deadline of the notice, where the degree grade cannot be evaluated, the average of the curriculum exams taken will be evaluated, recognizing up to a maximum of 10 points. Specifically:

1. The curriculum average grade rounded to the nearest whole number will be calculated;
2. Up to a maximum of 10 points will be assigned, as follows:
 - Average grade of 30: 10 points
 - Average grade of 29: 9 points
 - Average grade of 28: 8 points
 - Average grade between 26 and 27: 7 points
 - Average grade between 24 and 25: 4 points
 - Average grade below 24: 2 points

For the degree thesis, **up to a maximum of 4 points** for relevant thesis, recognizing:

- For a thesis of excellent quality, under the scientific depth profile, 4 points;
- For a thesis of good quality, under the scientific depth profile, 2 points;
- For a thesis of sufficient quality, under the scientific depth profile, 1 point.

For candidates obtaining the required title for admission after the deadline of the notice, the degree thesis will be evaluated according to the criteria above, only if produced in the final version with the Supervisor's signature. For candidates obtaining or who will obtain the degree title in foreign universities, the degree grade and average grades will be parameterized respectively in one hundred and tenths and in thirtieths.

Additional educational paths and professional and research experiences: up to a maximum of 3 points for additional educational paths and relevant professional and research experiences, recognizing:

- For each relevant professional teaching experience: 1 point;
- For each relevant professional research experience: 3 points for research grants, scholarships, or contracts aimed at research activities of at least one year. Grants, scholarships, and contracts of shorter duration will be evaluated proportionally with rounding to the second decimal place;
- For additional educational paths (such as relevant level II master's, relevant specialization, relevant qualification, participation in relevant conferences,

research and development experience in the company): 1 point for each up to a maximum of 3 points.

Publications: up to a maximum of **5 points** for relevant publications, recognizing:

- For each publication of excellent quality, under the scientific depth profile and editorial relevance, 3 points;
- For each publication of good quality, under the scientific depth profile and editorial relevance, 2 points;
- For all other publications not belonging to the previous categories: up to 1 point in total.

Research project: up to a maximum of 10 points, recognizing:

- For a research project of excellent quality, under the scientific depth profile and research aptitude, 10 points;
- For a research project of more than good quality, under the scientific depth profile and research aptitude, 9 points;
- For a research project of good quality, under the scientific depth profile and research aptitude, 8 points;
- For a research project of fair quality, under the scientific depth profile and research aptitude, 6 points;
- For a research project of more than sufficient quality, under the scientific depth profile and research aptitude, 4 points;
- For a research project of sufficient quality, under the scientific depth profile and research aptitude, 2 points;
- For a research project of insufficient quality, under the scientific depth profile and research aptitude, 0 points.

There is no interview

SISTEMA TERRA E CAMBIAMENTI GLOBALI

Codice corso	DR221
Duration	3 years
Department	Fisica e geologia
Position funded by ASI upon the agreement n. 2024-41-HH.0 -CUP F93C24000480001	1 for the research “Experimental petrology approaches to lunar volcanism: the case of study of Lunar Sinuous Riles (LSR)”
Research project	YES, mandatory
Coordinator	Prof. Cherin Marco

Degrees Required for Admission:

ALL among

- Specialist degree pursuant to D.M. 509/1999
- Master's degree pursuant to D.M. 270/2004
- Pre-reform degree (before D.M. 509/1999)
- Foreign master degree

It is recommended to consult attachment 2, paying particular attention to the documentation to be attached in relation to the qualification required for admission (4. DOCUMENTATION TO BE ATTACHED).

Selection procedure

The selection procedure will be carried out according to the following methods:

Evaluation of qualifications and interview (in sixtieths: 30 + 30)

Minimum overall score from which candidates are considered suitable: 33/60

The evaluation of qualifications will concern the university training course, as well as any further training courses and professional and research experiences and any scientific publications.

The evaluation will also concern the preparation by the candidates of a research project, of their choice, lasting three years, aimed exclusively at evaluating the candidate, on the characteristic themes of the doctorate, and consistent with the training objectives.

By way of example, a list of topics is published on the doctoral website, indicated by the teaching body, on which it will be possible to activate the research projects of the doctoral students of the XL Cycle as a priority.

The description of the research project must be divided into four sections: State of the Art, Objectives, Methodologies, Impact, each of which must not exceed 2,000 characters.

Evaluation of qualifications:

maximum score: 30 points;

minimum score required to access the interview: 12/30.

Before the interview takes place, it will be published on the University website at <https://www.unipg.it/didattica/percorsi-post-laurea/dottorati-di-ricerca/bandi-avvisi-e-modulistica>, the list of candidates admitted to the interview, with an indication of the score obtained in the evaluation of qualifications.

Candidates who do not reach the aforementioned minimum score in the evaluation of qualifications will not be admitted to the interview.

The qualifications will be evaluated as follows:

University educational path, up to a maximum of 11 points, recognizing:

to. For the degree grade, up to a maximum of 8 points, as assigned below:

Grade equal to 110/110 with honors: 8 points

Score between 109/100 and 110/110: 7 points

Score between 106/110 and 108/110: 6 points

Score between 103/110 and 105/110: 5 points

Score between 100/110 and 102/110: 4 points

Score between 97/110 and 99/110: 3 points

Score between 94/110 and 96/110: 2 points

Score between 90/110 and 93/110: 1 point

Grade lower than 90/110: 0.5 points

For candidates for whom it is not possible to evaluate the degree grade (registration in the competition with reservation), the curricular average of the exams taken will be evaluated according to the following scheme:

Average greater than or equal to 29: 8 points

Average greater than or equal to 28: 6 points

Average greater than or equal to 27: 5 points

Average greater than or equal to 26: 3 points

Average greater than or equal to 25: 2 points

Average less than 25: 0 points

b. For the Master's thesis, only if produced by the candidates, up to a maximum of 3 points, recognizing:

- a degree thesis of excellent quality, in terms of scientific depth and relevance to the topics of the doctorate: 3 points;

- a good quality degree thesis, in terms of scientific depth and relevance to the topics of the doctorate: 2 points;

- a degree thesis of sufficient quality, in terms of scientific depth and relevance to the topics of the doctorate: 1 point

Further training courses and relevant professional and research experiences, up to a maximum of 2 points, recognizing:

- for each period of training/internship, at qualified institutions in Italy or abroad of at least 30 continuous days: 0.5 points;

- for each professional experience in the field of teaching (tutoring, support teaching activities): 0.5 points;

- for each professional experience in research (research grants, scholarships and/or contracts, lasting at least six months): 1 point;

- for each further training course (second level university master's degree, specialization diploma, professional qualification): 1 point;

- for each participation in conferences, schools and workshops: 0.2 points.

Publications, up to a maximum of 2 points for relevant publications, recognizing:

- to each publication in a Scopus/Wos indexed journal, on the basis of originality, methodological rigor, the contribution provided by the candidate and relevance to the topics of the doctorate: up to a maximum of 2 points;
- to each non-indexed publication, on the basis of originality, methodological rigor, the contribution provided by the candidate and relevance to the topics of the doctorate: up to a maximum of 0.5 points.

Research project, up to a maximum of 15 points, recognizing, in relation to the scientific depth, the originality and innovativeness of the project and its relevance to the doctoral topics:

- to the research project of excellent quality: 15 points;
- to the excellent quality research project: 14 points;
- a very good quality research project: 12 points;
- good quality research project: 10 points;
- a research project of reasonable quality: 8 points;
- a research project of sufficient quality: 6 points;
- to a research project of insufficient quality: 0 points.

The **interview** will focus on the characteristic topics of the doctorate, consistent with the training objectives and will also be aimed at verifying the candidate's aptitude for research, willingness to carry out experiences abroad and scientific interests. To this end, the candidate will illustrate, during the interview, the research project proposal presented together with the application to participate in the selection for the purpose of evaluating the qualifications.

The interview, at the candidate's choice, can be held in English.

For interviews held in Italian, knowledge of the English language will be assessed.

The interview will be carried out in person; candidates' requests to carry out the interview via videoconference will be evaluated in light of the reasons given.

The minimum score to pass the interview is 21/30.

The criteria for evaluating the interview are the following: knowledge of the subject and clarity of presentation; aptitude for research; feasibility and originality of the project presented; availability to carry out experiences abroad and the candidate's scientific interests.

In particular, scores will be assigned on the basis of the following overall evaluation grading, as a result of the application of the above criteria:

30/30: Excellent profit

29/30: excellent profit

28/30: more than distinct profit

27/30: distinct profit

26/30: almost distinct profit

25/30: more than good profit

24/30: good profit

23/30: almost good profit

22/30: more than enough profit

21/30: sufficient profit

less than 21/30: not enough profit

Interview schedule:

On September 27, 2024, a notice will be published on the University website at <https://www.unipg.it/didattica/percorsi-post-laurea/dottorati-di-ricerca/bandi-avvisi-e-modulistica> and on the University's Online Notice Board, communicating the dates and times of the convocations or any other communication concerning this selection. This schedule constitutes formal convocation, and no personal communications will be sent in this regard. The candidate's absence from the selection tests (or failure to connect on the day and time of the interview in case of telematic mode) will be considered an implicit waiver of participation in the selection, whatever the cause.