

Ph.D course in Astrophysics and Cosmology

Head of the Ph.D course: Prof. Carlo Baccigalupi

Web site: [Astrophysics and Cosmology](#)

Research lines:

- Scientific Exploitation of Astrophysical and Cosmological Observations
- Theoretical, Phenomenological and Computational Investigations of Open Problems in Astrophysics & Cosmology

Fellowships available: 2

Admission: Academic and scientific qualifications + oral exam (remote/presence)

Beginning of the Courses: 2 October, 2023

Evaluation of academic and scientific qualifications: 30 points

Access to Oral Exam: minimum mark of 21/30 in the academic and scientific qualifications evaluation up to a maximum of 15 admitted candidates.

Evaluation of Oral Exam: 70 points

Total Evaluation: 100 points

Eligibility: 70 points

Deadline for online submission of applications: 22 August, 2023

Oral Exam: 12 and 13 September, 2023

Admission to the oral exam and results of all evaluations will be notified by email.

Ph.D course in Cognitive Neuroscience

Head of the Ph.D course: Prof. Mathew E. Diamond

Web site: [Cognitive Neuroscience](#)

Research line:

- Brain mechanisms of perception and higher cognitive functions

Fellowships available: 3

Admission: Academic and scientific qualifications + written exam + oral exam (remote)

Beginning of the Courses: 2 October, 2023

Evaluation of academic and scientific qualifications: 10 points

Access to Written Exam: minimum mark of 7/10 on academic and scientific qualifications

Evaluation of Written Exam: 40 points

Access to Oral Exam: minimum mark of 28/40 in the written exam evaluation

Evaluation of Oral Exam: 50 points

Eligibility: minimum mark of 35/50 in the oral exam evaluation

Deadline for online submission of applications: 28 August, 2023

Written Exam: 11 September, 2023

Oral Exam: 19 September, 2023

Results of all evaluations and the final ranking will be notified by email.

Ph.D course in Functional and Structural Genomics

Head of the Ph.D course: Prof. Remo Sanges

Web site: [Functional and Structural Genomics](#)

Research lines:

- Functional genomics
- Cerebral cortex development
- Prion biology
- Computational genomics
- Neurodevelopmental and neurodegenerative disorders
- Bioinformatics
- Neurogenomics
- Structural biology
- Molecular and cellular biology
- Evolutionary and comparative genomics
- Drug discovery
- Invertebrates neurogenetics
- Epitranscriptomic modulation of CNS development and function
- Aging

Fellowships available: 2

Admission: Academic and scientific qualifications + written exam + oral exam

Beginning of the Courses: 6 November, 2023

Evaluation of academic and scientific qualifications: 30 points

Access to Oral Exam: minimum mark of 21/30 in the academic and scientific qualifications evaluation up to a maximum of 15 admitted candidates.

Evaluation of Oral Exam: 70 points

Total Evaluation: 100 points

Eligibility: 70 points

Deadline for online submission of applications: 22 August, 2023

Oral Exam: 8 and 9 September, 2023

Admission to the written exam and results of all evaluations will be notified by email.

Ph.D course in Geometry and Mathematical Physics

Head of the Ph.D course: Prof. Ugo Bruzzo

Web site: [Geometry and Mathematical Physics](#)

Research line:

- Geometric and analytic aspects of Mathematical Physics

Fellowships available: 1

Admission: Academic and scientific qualifications + oral exam (remotely)

Beginning of the Courses: 2 October, 2023

Evaluation of academic and scientific qualifications: 30 points

Access to Oral Exam: minimum mark of 21/30 in the academic and scientific qualifications evaluation.

Evaluation of Oral Exam: 70 points

Total Evaluation: 100 points

To be considered eligible, candidates must pass all the phases (academic qualifications, and interview) with a minimum mark of 7/10 or equivalent.

Deadline for online submission of applications: 22 August, 2023

Oral Exam: dates to be defined (September 2023)

Admission to the written exam and results of all evaluations will be notified by email.

Ph.D course in Mathematical Analysis, Modelling, and Applications

Head of the Ph.D course:

Prof. Massimiliano Berti

Web site:

[Mathematical Analysis, Modelling, and Applications](#)

Research line:

- Dynamical Systems and PDEs, Calculus of Variations, Hyperbolic conservation Laws and Transport problem, Geometric Analysis, Geometry and control theory

Fellowships available: 2

Admission: Academic and scientific qualifications + written exam + oral exam (in presence – candidates domiciled in extra-EU countries will be allowed to attend remotely contemporaneously to the other candidates)

Beginning of the Courses: 2 October, 2023

Evaluation of academic and scientific qualifications: 10 points

Access to Written Exam: minimum mark of 7/10 on academic and scientific qualifications

Evaluation of Written Exam: 40 points

Access to Oral Exam: minimum mark of 28/40 in the written exam evaluation

Evaluation of Oral Exam: 50 points

To be considered eligible, candidates must pass all the phases (academic qualifications, written test, and interview) with a minimum mark of 7/10 or equivalent.

Deadline for online submission of applications: 22 August, 2023

Written Exam: 5 September, 2023

Oral Exam: 6 September, 2023

Admission to the written exam and results of all evaluations will be notified by email.

Ph.D course in Neurobiology

Head of the Ph.D course: Prof. Paul Alexander Heppenstall

Web site: [Neurobiology](#)

Research line:

- Manipulating and monitoring cellular function in the nervous system Peripheral Nervous System

Fellowships available: 1

Admission: Academic and scientific qualifications + oral exam

Beginning of the Courses: 6 November, 2023

Evaluation of academic and scientific qualifications: 30 points

Besides the documents mentioned in the general part of the announcement, all applicants must provide a written essay in English, describing their previous academic background and scientific motivations to pursue a SISSA PhD and including a short list of these projects among those listed above).

The essay (about 3 pages long – 800 words) will be used for an initial screening of suitable candidates to be invited to the oral exam.

Evaluation of Oral Exam: 70 points

Total Evaluation: 100 points

To be considered eligible, candidates must pass all the phases (academic qualifications, and interview) with a minimum mark of 7/10 or equivalent.

Deadline for online submission of applications: 22 August, 2023

Interviews: 27 and 28 September, 2023

Results of all evaluations and the final ranking will be notified by email.

Ph.D course in Physics and Chemistry of the Biological Systems

Head of the Ph.D course: Prof. Cristian Micheletti

Web site: [Physics and Chemistry of the Biological Systems](#)

Research lines:

- Structural bioinformatics
- Statistical mechanics of complex molecular systems
- Biomolecular simulations
- Simulations of rare events
- Data science of complex and biomolecular systems
- Polymer physics

Fellowships available: 2

Admission: Academic and scientific qualifications + written exam + oral exam (remote)

Beginning of the Courses: 2 October, 2023

Evaluation of academic and scientific qualifications: 10 points

Access to Written Exam: minimum mark of 7/10 in the academic and scientific qualifications evaluation up to a maximum of 12 admitted candidates

Evaluation of Written Exam: 40 points

Access to Oral Exam: minimum mark of 28/40 in the written exam evaluation

Evaluation of Oral Exam: 50 points

To be considered eligible, candidates must pass all the phases (academic qualifications, written test, and interview) with a minimum mark of 7/10 or equivalent.

Deadline for online submission of applications: 28 August, 2023

Written Exam: 11 September, 2023

Oral Exam: 12-13 September, 2023

Results of all evaluations and the final ranking will be notified by email.

Ph.D course in Theory and Numerical Simulation on the Condensed Matter

Head of the Ph.D course: Prof. Giuseppe Santoro

Web site: [Theory and Numerical Simulation on the Condensed Matter](#)

Research lines:

- Thermodynamic characterisation of measurement and complexity of dynamics for multi-qbit registers
- Development of multi-element interatomic potentials for energy materials from ab-initio data and machine learning

Fellowships available: 2

Admission: Academic and scientific qualifications + written exam + oral exam (also by videoconference)

Beginning of the Courses: 2 October, 2023

Evaluation of academic and scientific qualifications: 10 points

Access to Written Exam: minimum mark of 7/10 on academic and scientific qualifications

Evaluation of Written Exam: 40 points

Access to Oral Exam: minimum mark of 28/40 in the written exam evaluation

Evaluation of Oral Exam: 50 points

Eligibility: minimum mark of 35/50 in the oral exam evaluation

Deadline for online submission of applications: 22 August, 2023

Written Exam: 4 September, 2023

Oral Exam: 5-8 September, 2023

All results and the final ranking will be notified by email.