Ph.D course in Astrophysics and Cosmology

Head of the Ph.D course: Prof. Andrea Lapi
Web site: Astrophysics and Cosmology

Research lines:
- Early Universe Physics and CMB Data Analysis
- Galaxy Formation and Evolution
- Stellar Structure and Evolution
- Dark Matter and Dark Energy
- Gravitation Theory and Gravitational Waves
- High Energy and Multimessenger Astrophysics
- Galaxy Clusters and Large Scale Structures
- Astrochemistry and Astrobiology
- Computational Astrophysics
- Data Science specific topic - Machine Learning Methods for Supernova Type Ia Cosmology

Fellowships available:
- Astrophysics and Cosmology: 5
- Data Science specific topic - Machine Learning Methods for Supernova Type Ia Cosmology: 1

Candidates can apply to only one activity

Admission: Academic and scientific qualifications + oral exam
Beginning of the Courses: 1 October, 2020

<table>
<thead>
<tr>
<th>Evaluation of academic and scientific qualifications:</th>
<th>30 points</th>
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<tbody>
<tr>
<td>Access to Oral Exam:</td>
<td>minimum mark of 21/30 in the academic and scientific qualifications evaluation up to a maximum of 15 admitted candidates.</td>
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<tr>
<td>Evaluation of Oral Exam:</td>
<td>70 points</td>
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<tr>
<td>Total Evaluation:</td>
<td>100 points</td>
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<td>Eligibility:</td>
<td>70 points</td>
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First Session

Astrophysics and Cosmology

Deadline for online submission of applications: 3 March, 2020
Oral Exam: 24 and 25 March, 2020

Machine Learning Methods for Supernova Type Ia Cosmology

Deadline for online submission of applications: 3 March, 2020
Oral Exam: 23 March, 2020

Second Session (only if there should still be places available after the first one)

Astrophysics and Cosmology

Deadline for online submission of applications: 31 August, 2020
Oral Exam: 15 and 16 September, 2020
**Machine Learning Methods for Supernova Type Ia Cosmology**

| Deadline for online submission of applications: | 31 August, 2020 |
| Oral Exam:                                      | 15 and 16 September, 2020 |

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