Course in: PHYSICS AND NANOSCIENCES
In agreement with the Istituto Italiano di Tecnologia (IIT – Italian Institute of Technology)
Curriculum: APPLIED SUPERCONDUCTIVITY (CODICE 7738)

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<th>Coordinator: Ferrando Riccardo</th>
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<td>Department of Physics (Dipartimento di Fisica – DIFI)</td>
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<td>Places: 2 – Borse: 2 (*)</td>
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<td>(*) 1 grant funded by the National Institute of Nuclear Physics (Istituto Nazionale di Fisica Nucleare – INFN), the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 15,343.28.</td>
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<th>Comparative assessment procedure</th>
<th>QUALIFICATIONS/PUBLICATIONS AND INTERVIEW</th>
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**Interview**
8.7.2019 – ore 9:00 presso il Dipartimento di Fisica (DIFI), via Dodecaneso 33, Genova.

**Further information on how to present qualifications/publications**
Each candidate must present the research proposal he/she intends to work on during the three-year Doctoral course.

The research proposal must be written in English: max. 5000 characters including spaces.

**Exam Syllabus**
- Discussion of Qualifications/Publications.
- Discussion of the 5-year degree course dissertation.
- Presentation and discussion of the proposed research project.
- Discussion on Basic Physics topics (general physics, modern physics).
- Testing the knowledge of the English language

**Research Themes**
- Study of superconducting materials and their properties; preparation of superconducting materials in the form of thin films; development of ribbons and wires for current transport;
- Study of dissipative phenomena in superconducting cables; development of superconducting magnets for future accelerators; the study of innovative layouts for superconducting magnets;
- Study of advanced superconducting devices for radiation detection and electronics for use in physics and astrophysics and in technological applications for IC and security.

**Information on references**
Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, if possible in English, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: phd@fisica.unige.it

The subject of the email MUST be: PHD REFERENCE LETTER – APPLIED SUPERCONDUCTIVITY

**Foreign Languages**
Excellent knowledge of both spoken and written English.
A very basic knowledge of Italian is desirable.