

Dottorato in Fisica degli acceleratori

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Incontro studenti primo anno
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Introduction

- ▶ PhD programme **dedicated** to the Physics of **Accelerators** both theoretical and experimental
 - ▶ **Unique** in Italy
 - ▶ Based in Sapienza but **national**
 - ▶ **Grants (41th)**: 6 INFN + 2 Sapienza + 1 industry
 - ▶ + 3 position with no grants (2 currently filled)
 - ▶ **Courses** teach principles of accelerator theory and its applications in different domains
 - ▶ Students **required** to **attend** both theoretical and hands-on courses at INFN labs
 - ▶ **Classes** can be attended **remotely (but NOT JUAS)**
 - ▶ **Research** activity can be done at your **home lab**
 - ▶ **Web site:** https://phd.uniroma1.it/web/FISICA-E-TECNOLOGIA-DEGLI-ACCELERATORI_nD4093_IT.aspx
(old: https://phd.uniroma1.it/web/FISICA-DEGLI-ACCELERATORI_nD3504_IT.aspx)
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Timeline for your PhD

▶ **First year (start on Nov 1st)**

- ▶ Attend **classes**: 18 ECTS - about 6-8 hours/ECTS
- ▶ Attend **seminars** (mandatory!)
- ▶ Submit by end of Dec a **study plan** to be approved by the Scientific Board.
- ▶ Prepare a **thesis project to be submitted by end of first year**

▶ **Second year**

- ▶ **Hands-on** training (LNF) (Spring)
- ▶ Give a **seminar** on the status of the project and write a status report (end of 2nd year)
 - ▶ Admission to 3rd year by the Board
 - ▶ Two referees read the status report

▶ **Third year**

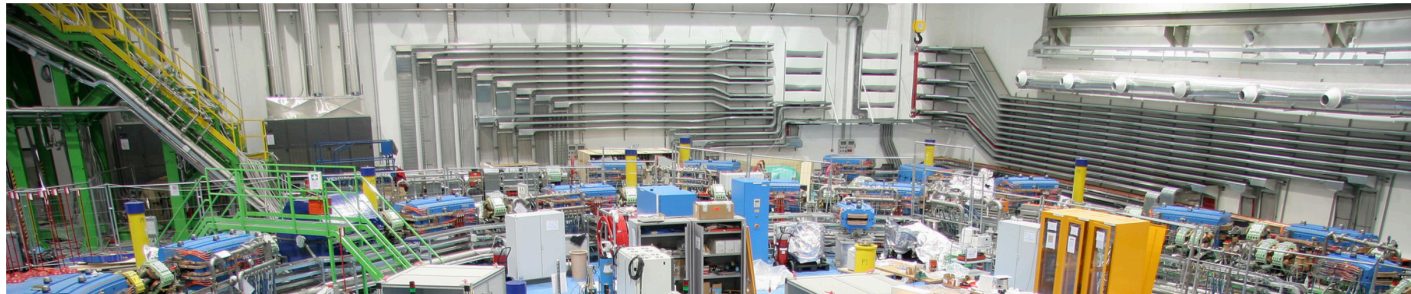
- ▶ **Work** on the PhD thesis project
 - ▶ Thesis **writing**
 - ▶ Thesis draft by end of third year - then same two referees read it
 - ▶ Final seminar (three months before the **defence**)
 - ▶ Currently organising three slots for the defence : Jan - May and Sep.
 - ▶ **Final defence in front of a committee**
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Course and seminars

- **1st semester:**
 - **JUAS** (JUAS1 compulsory, 9 ECTS) Jan-Feb. **Please register!**,
- 2nd semester (# ECTS)
 - M.Ferrario (INFN): “*Physics of High Brightness Accelerators*” end Mar-Jun (6)
 - M.Migliorati, A.Mostacci, E.Metral (CERN): “*Collective effects in circular accelerators*” late spring (3)
 - A.Pietropaolo (ENEA) : “*Neutron production mechanisms, sources and applications*” TBD (3)
 - G.Franciosini - V.Patera: “*Radiation-Matter interaction for medical physics*”, Mar-Jun (3)
 - S.Farinon (INFN) “*Superconducting Magnets and applied cryogenics*” Mar-Jun (3)
 - S.Lupi - “*Radiation sources*” Mar-Jun (3)
 - G.Felici, “*Regulatory and Safety Framework of Medical Accelerators*” (3) <— NEW !!!
 - Seminars INFN Acceleratori
- See <https://phd.uniroma1.it/web/OffertaFormativaErogataCiclo.aspx?c=41&i=4093&l=IT> for **details**
- **3rd, 4th semester (second year)**
 - **Seminars + Hands-on (in presence at LNF during spring !)**
- **5th, 6th semester:**
 - **Seminars**
- In principle **courses from PhD and Master in Physics can be added** (need to be approved by the PhD board)

Research topics

- ▶ Today's meeting is informative
 - ▶ You might find a thesis project
 - ▶ Also keep on eye on <https://acceleratori.infn.it/index.php/it/>



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