

## SEMINARI DEI DOTTORANDI

Dipartimento di Fisica, Aula 101

**Mercoledì 16 Settembre 2026**

### First morning session - Chairmen: Alessio Alvaro - Davide Rinaldi

|             |                                   |                                                                                       |
|-------------|-----------------------------------|---------------------------------------------------------------------------------------|
| 9.00-9.30   | <b>Alice Casali</b>               | <i>When less is more: how irradiated volume shapes tissue damage in Radiotherapy.</i> |
| 9.30-10.00  | <b>Andrea Maestri</b>             | <i>Truncate Smart, Not Hard: Hamiltonian Truncation Effective Theory</i>              |
| 10.00-10.30 | <b>Antonio Emanuele Mazzarone</b> | <i>OAM and Single-Shot EUV Ptychography with HHG and FEL Sources</i>                  |
| 10.30-10.45 | <i>Break</i>                      |                                                                                       |

### Second morning session - Chairmen: Alessandro Somenzi

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|-------------|------------------------|--------------------------------------------------------------------------------------|
| 10.45-11.15 | <b>Andrea Parpinel</b> | <i>Bouncing Fermions: how can we model confined relativistic spin-1/2 particles?</i> |
| 11.15-11.45 | <b>Marco Ghilardi</b>  | <i>High-precision Monte Carlo predictions for radiative return with BabaYaga@NLO</i> |

### First afternoon session - Chairmen: Beatrice Costeri - Emanuele Brusaschi

|             |                            |                                                                  |
|-------------|----------------------------|------------------------------------------------------------------|
| 14.30-15.00 | <b>Alessandro Tamiglio</b> | <i>Discovery of ZZ Vector Boson Scattering at CMS experiment</i> |
| 15.00-15.30 | <b>Raman Deep Singh</b>    | <i>Boundary Effects in Quantum Field Theory</i>                  |
| 15.30-16:00 | <b>Saverio Rota</b>        | <i>Integrability of the Thirring Quantum Cellular Automaton</i>  |
| 16:00-16:15 | <i>Break</i>               |                                                                  |

### Second afternoon session - Chairmen: Lorenzo Marti

|             |                               |                                                                      |
|-------------|-------------------------------|----------------------------------------------------------------------|
| 16:15-16:45 | <b>Ezequiel Ignacio Canay</b> | <i>Implementation and Characterization of a Vertical Proton Beam</i> |
| 16.45-17.15 | <b>Matteo Brunoldi</b>        | <i>Fast &amp; Robust: R&amp;D towards MPGDs improvement</i>          |



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**Giovedì 17 Settembre 2026**

### First morning session - Chairmen: Andrea Pizzamiglio - Tommaso Cresta

- 9.00-9.30 **Tommaso Brambilla** *Local Measurement Theory for Quantum Cellular Automata*
- 9.30-10.00 **Martina Foresti** *Quantum coherence time of molecular nanomagnets: new pathways to qubit computation*
- 10.00-10.30 **Riccardo Scaglioni** *From discovery to precision physics: ATLAS Trigger and Data Acquisition evolution*
- 10.30-10.45 *Break*

### Second morning session - Chairmen: Francesco Pio Ucci - Lorenzo Perruccio

- 10.45-11.15 **Gaia Candreva** *Repeated interactions as a thermodynamic microscope: spin rings and clustering collision models*
- 11.15-11.45 **Andrea Schiavi** *Quarks, with an Extra Twist*

### First afternoon session - Chairmen: Chiara Delledonne

- 14:30-15:00 **Cristina Pezzi** *Behind the Beam: Towards Smart BNCT Treatment Planning*
- 15:00-15:30 **Giulia Giannandrea** *Going Green at CERN*
- 15:30-16:00 **Nicola Manenti** *Shedding light on CUORE & CUPID: an Optical Probe for Bolometers Characterisation*
- 16.00-16.15 *Break*

### Second afternoon session - Chairmen: Emanuele Tumbiolo - Luca Polano

- 16:15-16:45 **Maria Plana Herranz** *Towards clinical upright particle therapy: commissioning, strategies and challenges*
- 16.45-17.15 **Cecilia Riani** *Molecular Imaging and Spatial Multi-Omics for personalized Breast Cancer diagnosis and treatment*