

## SEMINARI DEI DOTTORANDI

Dipartimento di Fisica, Aula101 e Zoom

### Giovedì 30 Settembre 2021

#### First morning session - Chairman: Tommaso Perani

- 9.00-9.30 **Simone Restelli** *Can a (stable) spinel change your world?*
- 9.30-10.00 **Simone Zanotti** *Radiation-matter coupling in metasurfaces*
- 10.00-10.30 **Francesca Barbaro** *Nuclear data modeling for innovative radionuclides production: from cross section to dosimetry*
- 10.30-11.00 *Break*

#### Second morning session - Chair(wo)man: Lissa de Souza Campos

- 11.00-11.30 **Leonardo Lonati** *Cell cycle perturbation after ionizing radiation exposure: in vitro and in silico models*
- 11.30-12.00 **Matteo Cerutti** *Mapping the internal structure of the proton*

#### First afternoon session - Chairman: Davide Fiorina

- 14.00-14.30 **Han Yang** *Effect of micro boron and oxygen distribution on DNA damage during boron neutron capture therapy by Monte Carlo simulations*
- 14.30-15.00 **Alessandro Colombi** *Towards new radiopharmaceuticals: a journey among nuclear reaction modeling and numerical computations*
- 15.00-15.30 **Andrea Barone** *Generation of quantum states of light in integrated nanoresonators*
- 15.30-16.00 *Break*

#### Second afternoon session - Chairman: Davide Cicolari

- 16.00-16.30 **Simone Venturini** *Pion Parton Distribution Functions: Gotta catch'em all!*
- 16:30-17:00 **Ettore Budassi** *The muon anomalous magnetic moment*
- 17:00-17:30 **Chiara Aimè** *Throw light on Dark Matter*

**SEMINARI DEI DOTTORANDI**  
Dipartimento di Fisica, Aula101 e Zoom  
**Venerdì 1 Ottobre 2021**

**First morning session - Chairman: Paolo Rinaldi**

- 9.00-9.30 **Giulia Manco** *Colouring the jets at LHC*
- 9.30-10.00 **Claudio Sutrini** *Quantum physics for computation: a categorical approach in science education*
- 10.00-10.30 **Jinky Agarwala** *Dual-Readout Calorimetry for Next-Generation Colliders*
- 10.30-11.00 *Break*

**Second morning session - Chairman: Simone Calzaferri**

- 11.00-11.30 **Stefano Mangini** *Variational Quantum Algorithms as Machine Learning Models*
- 11.30-12.00 **Clara Del Pio** *The Standard Model and Beyond: what's next for high-energy phenomenology?*

**First afternoon session - Chairman: Alessandro Veronese**

- 14.00-14.30 **Matteo Lugli** *The T-process*
- 14.30-15.00 **Leonardo Vaglini** *Information content for Operational Probabilistic Theories*
- 15.00-15.30 **Federico Sclavi** *An overview on stochastic partial differential equations: applications in physics and mathematical problems*
- 15.30-16.00 *Break*

**Second afternoon session - Chairman: Lucio Andreani**

- 16:00-16:30 **Francesca Familiari** *A distance functional between lightcones and Precision Cosmography*
- 16.30-17.00 **Luca Zatti** *To Couple or Not to Couple? Parametric fluorescence in microresonators*