

# SUMMER STUDENT LECTURE PROGRAMME 2022

Lecture Title

Heavy ions

Lecturer's name

Francesca Bellini

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Short CV

Experimental physicist in the field of high-energy nuclear physics with ALICE at the LHC. PI of the ERC-funded CosmicAntiNuclei project.

Current research goal: understand the formation mechanisms of hadrons and (anti)nuclei from the elementary building blocks and fundamental properties of QCD.

- 2013: PhD in Physics at the University of Bologna.
- 2013-2017: Postdoc Researcher at the University of Bologna (Italy) and INFN-CERN Cooperative Associate Fellow scientist at CERN.
- 2017-2020: Senior Research Fellow at CERN, and Marie Skłodowska-Curie Fellow.
- Since 2021: Associate Professor at the University of Bologna (Italy).

Lecture Content

Heavy-ion physics as a lab to study QCD.  
The basic concepts of heavy-ion physics.  
Experimental investigation of the quark-gluon plasma.  
Production and characterization of the QGP at the LHC.

Pre-requisites:  
earlier series of lectures  
that the students  
should follow

The Standard Model lectures at this school.

Other pre-requisites: