



Dipartimento di Fisica  
Università di Cagliari  
INFN, Sezione di Cagliari



# HIGH ENERGY PHYSICS COLLOQUIA

March 17, 2021 · 02.30 pm · Held via Zoom

Barbara Pasquini  
*Università & INFN, Pavia*

## A JOURNEY TO THE CENTER OF THE PROTON

### Abstract

Protons and neutrons constitute the building blocks of normal matter, accounting for almost all the mass of our world. We are still far from understanding the intricacies and mysteries of their inner structure. In the course of several decades of successful studies and fruitful synergy of theoretical and experimental progress, we dedicated our efforts to delving deeper and deeper into them. These studies challenge our comprehension of the underlying quark and gluon dynamics and at the same time put us to face with fundamental questions, such as:

- What is the evolving picture of the nucleon when explored at different resolution scales?
- What is the size and shape of the nucleon?
- Where are the mass and spin of the nucleon coming from?

In this seminar, I will address these questions emphasizing the perspectives of both the theoretical and experimental investigations in the near future.

### External Link:

Presentation room [here](#).

Slides can be found on the INFN HEPC [website](#)  
or at the indico event [link](#) after the seminar.

### Contacts:

HEPC organizers ([hepcolloquia@ca.infn.it](mailto:hepcolloquia@ca.infn.it))  
Barbara Pasquini ([barbara.pasquini@unipv.it](mailto:barbara.pasquini@unipv.it))  
<https://theory.ca.infn.it/seminars/>

