

# Phenomenology of hadron structure: why low energy physics matters.

## Abstract content

The description of the internal structure of hadrons is one of the main goal of QCD. At moderate energy scales, the hadronic representation succeeds to the partonic description, rendering challenging the description of the dynamics of scattering processes and hadronic structure. The information on the hadron structure is embodied in the long distance contributions which are defined as Parton Distribution Functions (PDFs). PDFs are a key framework for connecting the low and high-energy regimes, in that the knowledge on nonperturbative QCD bears important consequences at the high-energy level. We here review recent progress in the description of the proton, from complementary approaches such as fits of PDFs, phenomenological analyses and experimental predictions in view of the JeffersonLab upgrade and applications for high-energy colliders.

## Summary

**Primary author(s) :** Dr. COURTOY, Aurore (IFPA, Université de Liège (Belgium) & INFN-Laboratori Nazionali di Frascati (Italy))

**Presenter(s) :** Dr. COURTOY, Aurore (IFPA, Université de Liège (Belgium) & INFN-Laboratori Nazionali di Frascati (Italy))