

Science Colloquia

Sala Conferenze, DFA

24/03/2026 h 14:45

The future Electron-Ion Collider (EIC), with its large range of center-of-mass energies, ion species, in combination with high luminosity and polarization of both the electron and the proton/light-ion beams will transform our understanding of Quantum Chromo-Dynamics (QCD).

Its new state-of-the-art detector, ePIC, will open a unique opportunity for high precision measurements of both cross sections and spin-asymmetries in e+p(A) collisions.

The ePIC Collaboration has been established in July 2022 to build a general-purpose detector designed to investigate the whole EIC core science program.

Studies of key measurements are ongoing to demonstrate that ePIC can deliver on its mission. Processes taken into consideration are chosen for both their relevance to the core science and the specific challenges that they pose to the detector.

This talk will highlight performance studies by the Physics Working Groups of ePIC in the context for the Technical Design and the Early Science Report.

I Science Colloquia del DFA "Ettore Majorana", sono appuntamenti con la scienza dedicati a Ricercatrici e Ricercatori, Studentesse e Studenti (della Laurea Magistrale in Physics, del terzo anno della Laurea Triennale in Fisica, e dei Dottorati al DFA) interessati a condividere argomenti ed esperienze di ricerca. I Science Colloquia, coordinati dai Proff. Giuseppe Falci e Livio Lamia, si tengono con cadenza mensile.

Physics with the ePIC detector at the future

Electron-Ion Collider

Salvatore Fazio (UniCal)

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