

Baryon Structure and Spectrum

Monday, 9 May 2022 16:50 (30 minutes)

On-going experiments at international electron accelerators, such as MAMI and ELSA in Germany and the Thomas Jefferson National Accelerator Facility (Jefferson Lab) in the US, involve more than 70 scientists from ten different INFN locations.

The experimental program spans over a broad range of scientific scopes, designed to address fundamental issues in nuclear physics, such as spectroscopy and structure of the excited baryon states, including the search for hybrid hadrons having the glue as an extra constituent component beyond the valence quarks, 3-D imaging of the ground state nucleons and exploration of the $N \rightarrow N^*$ form factors in the transition from confinement to perturbative QCD.

Additional profound questions in hadron physics, such as the emergence of the mass and the spin of the nucleon and the properties of dense systems of gluons, will be addressed at the future electron-ion collider, which is expected to attract the next generation of physicists, interested in elucidating the working of QCD.

Primary author: D'ANGELO, Annalisa (Istituto Nazionale di Fisica Nucleare)

Presenter: D'ANGELO, Annalisa (Istituto Nazionale di Fisica Nucleare)

Session Classification: Dinamica di quark e adroni I