

## Baryon Electromagnetic Form Factors at BESIII

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Electromagnetic form factors are fundamental observables needed to parametrize the electric and magnetic structure of hadrons and used to probe the strong interaction.

In this contribution we report on the recent measurements of baryon electromagnetic form factors at the BESIII experiment in Beijing.

The BESIII spectrometer is located at the BEPCII collider, a symmetric  $e^+e^-$  collider running at the center-of-mass energies between 2.0 and 4.6 GeV.

This wide energy range allows direct measurement of electromagnetic form factors both from direct  $e^+e^-$  annihilation and from initial-state-radiation processes.

Based on the data collected by BESIII at 12 center-of-mass energies between 2.23 and 3.67 GeV, the  $e^+e^- \rightarrow p\bar{p}$  cross section and the time-like proton form factors are measured.

Preliminary results from the analysis on the initial-state-radiation radiation process  $e^+e^- \rightarrow p\bar{p}\gamma$  using a data set of about  $7.4 \text{ fb}^{-1}$

collected at the center-of-mass energies between 3.773 and 4.6 GeV are also presented.

Besides nucleons, all hyperons in the SU(3) spin 1/2 octet and spin 3/2 decuplet are energetically accessible within the BEPCII energy range.

Furthermore, a world-leading data sample was collected in 2014-2015 for precision measurements of baryon form factors, which

allows the measurement of the relative phase between the electric and magnetic form factors for  $\Lambda$  and  $\Lambda_c$  hyperons with unprecedented accuracy.

The results from the  $e^+e^- \rightarrow \Lambda \bar{\Lambda}$  and the  $e^+e^- \rightarrow \Lambda_c \bar{\Lambda}_c$  channels are also discussed.

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