Contribution ID: **105** Type: **Parallel**

Semileptonic decays of hyperons at BESIII

Friday, June 26, 2026 4:05 PM (20 minutes)

With the large datasets from e^+e^- annihilation at the J/ψ resonance collected by the BESIII experiment, multidimensional analyses leveraging polarization and entanglement can provide new insights into the hadronic structure of semileptonic decays. Recent studies at BESIII enable the measurement of form factor ratios of (anti)hyperons in the decays $J/\psi \to \Lambda\bar{\Lambda}$ and $\Xi^-\bar{\Xi}^+$. In combination with lattice QCD calculations, This allows to the extraction of the V_{us} matrix element for the first time in more than 20 years.

Collaboration

Primary author: BATOZSKAYA, Varvara (National Centre for Nuclear Research)

Presenter: BATOZSKAYA, Varvara (National Centre for Nuclear Research)

Session Classification: Parallel session A3

Track Classification: Tests of fundamental symmetries and precision experiments