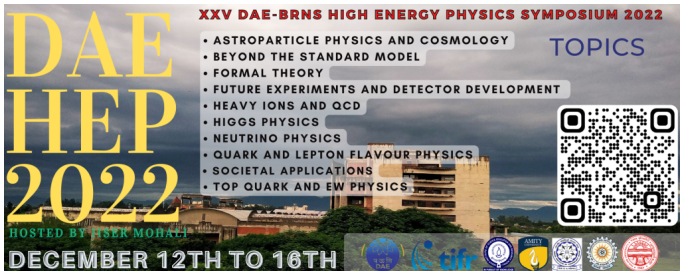

Contribution ID: **479** Type: **Poster**

Study of Photon energy bias using $\pi^{0} \to \gamma\gamma$ decays from $D^{*+} \to D^{0}(\to K^{-}\pi^{+}\pi^{0})\pi^{+}$ at Belle II.

Tuesday 13 December 2022 14:00 (1 hour)

Photon energy bias is used to compute the corrections to the reconstructed photon energy and improve data-simulation agreement in analyses having final states with photons.
In this study, we reconstruct clean samples of $\pi^{0} \to \gamma\gamma$ decays from the $D^{*+} \to D^{0}(\to K^{-}\pi^{+}\pi^{0})\pi^{+}$ decay chain in both simulation and data collected by Belle II. The Belle II is the upgraded experimental facility at SuperKEKB, KEK, Japan. We present the comparison of mean π^{0} mass and π^{0}-mass resolution in data recorded at 207 fb^{-1} as well as in simulation in different bins of photon energy.

Session

Future Experiments and Detector Development

Authors: Ms SHARMA, Chanchal (MNIT Jaipur); Dr LALWANI, Kavita (MNIT Jaipur); Dr CANTO, Angelo Di (BNL USA)

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Session Classification: Poster - 2