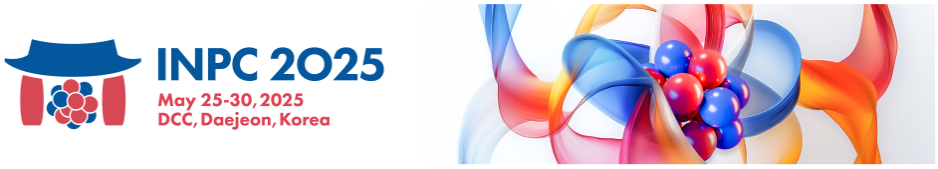

Contribution ID: **409** Type: **Contributed Poster Presentation**

Measurements of beauty-jet cross section in pp collision using the ALICE detector in Run3

The cross section of beauty jets can be described by perturbative quantum chromodynamics (pQCD), even at low \(p_T\), due to their large mass. Moreover, beauty jets provide valuable insights into how the partonic mass influences fragmentation. One of the primary challenges in measuring beauty jets is accurately identifying them within the overall jet sample. Thanks to the upgrades to tracking and data acquisition in the ALICE detector during Run 3, the capabilities of the ALICE detector for b-jet tagging have greatly improved. This presentation will report b-jet cross section measurements using well-established b-jet tagging methods, including the impact parameter method, which analyzes the displacement of tracks relative to the primary vertex, and the secondary vertex method, which reconstructs the decay vertices of long-lived beauty hadrons.

Primary author: LEE, Hyungjun (Sungkyunkwan University)

Presenter: LEE, Hyungjun (Sungkyunkwan University)

Session Classification: Poster Session

Track Classification: Hot and Dense Nuclear Matter