

Status and Future development of the Full Event Interpretation Algorithm at Belle II

Thursday, July 30, 2020 12:40 PM (15 minutes)

The Full Event Interpretation (FEI) is an exclusive tagging algorithm, that was developed for the Belle II experiment. By employing multivariate classifiers the FEI can identify and reconstruct semileptonic and hadronic B meson decay cascades with high efficiency. In this talk the status and performance of the FEI using recorded Belle II collision data is presented. Calibration studies of the FEI efficiency using standard candle processes such as $B \rightarrow X \ell \bar{\nu}_\ell$ are reported to evaluate the algorithm's tagging performance. Further, we discuss the status of future developments to extend the capabilities of the algorithm to reconstruct B_s mesons and to include baryonic B meson decay cascades.

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Secondary track (number)

05

Author: SUTCLIFFE, William

Presenter: SUTCLIFFE, William

Session Classification: Operation, Performance and Upgrade of Present Detectors

Track Classification: 12. Operation, Performance and Upgrade of Present Detectors