

Contribution ID: 89

Type: ORAL

Reconstruction Tools in Key4hep

Thursday 10 October 2024 14:35 (20 minutes)

Full simulation studies are an essential tool to estimate the physics reach for future colliders. Developing optimal reconstruction tools for future colliders is one of the main goals for Key4hep. To properly estimated performances, it is of particular importance to correctly treat beam-induced backgrounds and estimate how they affect reconstruction efficiencies and resolutions for sophisticated algorithms such as for particle flow clustering, which is a key ingredient for optimal jet energy resolutions. This presentation will cover the developments for and the integration of background overlay processor, the interface to Pandora PFA for arbitrary detectors and related algorithms, such as digitisers, and which issues were discovered and resolved along the way.

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Session Classification: Parallel - WG2

Track Classification: WG2: WG2 - Physics Analysis Methods