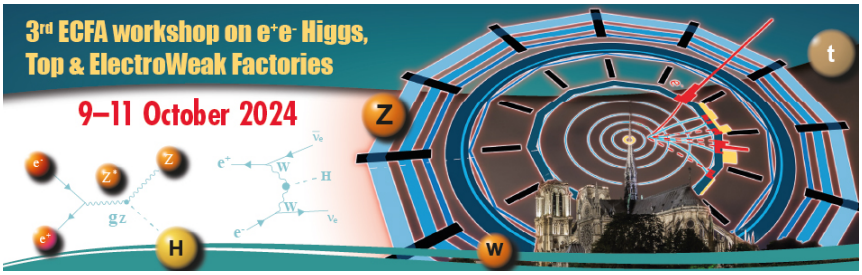

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Detector impact on flavour tagging at the FCC-ee

Wednesday 9 October 2024 11:40 (14 minutes)

The ParticleNet tagger is a graph neural network devoted to the tagging of jets from the hadronization of multiple flavors at the FCC-ee. Its impressive and unprecedented tagging performance allows for accessing rare and challenging hadronic final states. This study shows the fast-simulation-based characterization of the ParticleNet performance evolution as a function of the IDEA vertex detector single-hit resolution, material radiation length and number of layers. Furthermore, an attempt to study impacts in physics applications such as the all-hadronic and Higgs-invisible ZH final states will be shown.

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Session Classification: Parallel - WG1-HTE

Track Classification: WG1: WG1-HTE - Physics Potential: Higgs, top and electroweak