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Redefining the target for full detector reconstruction algorithms

One of the main points of object reconstruction is the definition of the targets of our reconstruction. In this talk we present recent developments on the topic, focusing on how we can embed detector constraints, mainly calorimeter granularity, in our truth information and how this can impact the performance of the reconstruction, in particular for Machine Learning based approaches. We will first discuss how we use a merging algorithm to check for overlapping showers, defining a merged ground truth for the calorimeters. We also present the results coming from the usage of this redefined truth information during the model training, testing different configurations of the merging algorithm, in order to test their effects on physics performance.

Significance

References

Experiment context, if any

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