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Construct Deep Jet Clustering

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Jet clustering is one of the main key to obtain better physics results because
reducing mis-clustring leads to improve the mass resolution of the resonances especially in multi-jet situation.
Present jet clustering is far from a good tool for reconstructing jets. We need to tackle the problem
and should explore the possibility of constructing better jet clustering algorithm.
Recently, DeepLearning has been established in data science field, and is applied to many other different tasks.
Assigning each particle to the correct jet is equivalent to paint tracks with corresponding color, or if tracks are clustered,
to segment a corresponding region in r-phi plane.
In computer vision field, these tasks are called as "Semantic (Instance) Segmentaion".
It is worth trying those idea to jet clustering algorithm.
We will report the current status of the jet clustering study using DeepLearning.

Time Zone

Asia/Pacific

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