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The performance and IRC safety of Spectral Clustering when Jet tagging.

Wednesday 16 December 2020 10:30 (30 minutes)

Spectral clustering, developed by the machine learning community, has been seen to be a powerful and versatile clustering method. Jet clustering, particularly in the case of a boosted topology, is a key problem for particle identification in experimental physics. If spectral clustering can be shown to be suitable for the task it may be able to extract more information from the data we generate.

A key factor for the suitability of an clustering algorithm is infrared and collinear (IRC) safety. While there are algorithms that are not IRC safe, the most popular algorithms are. To be viable for use in QCD calculations the jet formation algorithm must be IRC safe.

In this talk I will discuss the mechanics, performance and the IRC safety of spectral clustering.

Would you be interested in receiving feedback on your talk?

Yes

Will you be pre-recording your talk?

Yes

Length of talk

15-25 minutes

Are you happy for your talk to be recorded?

Yes

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