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Heavy-flavour jet identification at the CMS experiment for Run 2 (12' + 3')

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Identification of jets originating from b or c quarks is important for a wide variety of standard model physics (e.g. final states involving top quarks and Higgs bosons) as well as searches for physics beyond the standard model. Due to the increased center of mass energy in Run 2, final states with boosted b-quark jets become increasingly important. The CMS collaboration developed a number of new tools such as improved b-jet identification algorithms, a first charm-jet tagger, a boosted double b-tagger to discriminate fat jets in which two b jets are present from those in which one b jet is present, ... In this presentation, we will review these newly developed algorithms. In addition, we will present the performance of the established and new algorithms on the 13 TeV data.

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