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# Jet reconstruction with particle flow in heavy-ion collisions with CMS

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In the particle-flow approach one attempts to combine information from all available sub-detector systems to reconstruct all stable particles. Such an event reconstruction has been shown to improve the resolution of jets and missing transverse energy in pp collisions compared to purely calorimetric measurements. This is achieved primarily by combining the precise momentum determination of charged hadrons in the silicon tracker with the associated energy depositions in the calorimeters. By resolving individual particles inside jets, particle flow reduces the sensitivity of the jet energy scale to the jet fragmentation pattern, which is one of the largest sources of systematic uncertainty in jet reconstruction. Particle flow is thus an attractive tool for the study of potential modifications to jet fragmentation in heavy-ion collisions. The particle flow algorithm has been adapted to the heavy-ion environment. The performance of jet reconstruction from particle flow objects in PbPb collisions using the anti-kT jet reconstruction algorithm will be presented.

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