

On the limits of the hadronic energy resolution of a calorimeter

Monday 2 October 2017 16:40 (20 minutes)

In particle physics experiments, the quality of calorimetric particle detection is typically considerably worse for hadrons than for electromagnetic showers. In this talk, I will discuss the root causes of this problem and evaluate two different methods that have been exploited to remedy this situation: compensation and dual-readout. It turns out that the latter approach is more promising, as evidenced by theoretical considerations, Monte Carlo simulations and experimental results.

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Session Classification: Calibration & operation