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Soft Puppi

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Pileup is one of the biggest challenges facing the LHC and HL-LHC physics programs. Many reconstruction methods have been proposed for mitigating its effects across a broad range of physics metrics such as jet and jet substructure response and resolution, missing transverse energy performance, and lepton identification. Among the most successful are the SoftKiller and Pileup Per Particle Identification (PUPPI) algorithms which operate on the event constituents and have been demonstrated to holistically improve these physics metrics. In this talk, we explore the complementarity of these algorithms in order to optimize an algorithm for both simplicity and performance.

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