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## Introducing P-jets: A priority based, noise tolerant jet algorithm

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With the increase in beam energy at the LHC comes a drastic increase in the number of minimum bias events occurring alongside the physics events. These pileup events will contaminate jet energy of reconstructed jets, in addition to producing many fake jets composed of purely pileup energy. Our proposed solution to this problem is to implement a new jet algorithm that combines the speed and theoretical stability of the  $k_T$  family of algorithms with the pileup exclusion that comes with jet pruning. This new jet algorithm, dubbed “p-jets,” has shown promise in some simple simulations, and warrants further study.

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