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## Resolving Combinatorial Ambiguities at Hadron Colliders with $MT_2$

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We present a method to resolve combinatorial issues in multi-particle final state at hadron colliders. The use of kinematic variables such as  $MT_2$  and invariant masses significantly reduces combinatorial ambiguities in signal but at a cost of losing statistics. We illustrate the idea with a pair of gluinos which leads to 4-jets +  $\cancel{E}_T$  signal, and apply the same idea to the t-tbar dilepton system to resolve two-fold ambiguity in finding the correct combination of a b-jet and a lepton. Our method provides much larger efficiency with similar purity compared to results in recent studies.

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