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Search for New Physics using the α_{T} variable in multijet events using b-tagging PAUL GEFFERT, UCSB, CMS COLLABORATION — We present a search for new physics in 34.6 pb^{-1} of pp collisions at $\sqrt{s} = 7$ TeV in the all hadronic mode with the signature of large transverse momentum imbalance and one or more b-quark jets. This momentum imbalance is described by the kinematic variable α_{T}, which substantially reduces the QCD background. Using data driven background estimation methods, we predict 2.34 ± 0.54 and observe 1 event. We set 95% confidence level upper limits on benchmark Supersymmetry signal models.

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