

Abstract Submitted
for the APR13 Meeting of
The American Physical Society

Likelihood analysis in Compact Muon Solenoid search for physics beyond the standard model in events with bottom-quark jets BENJAMIN KREIS, Cornell University, CMS COLLABORATION — We present a search for physics beyond the standard model (BSM) in events with large missing energy, at least three jets, and at least one identified b-jet. The study is performed using a sample of proton-proton collisions collected with the Compact Muon Solenoid detector. We will describe in detail how control samples in the data are used to evaluate backgrounds arising from events with either one or two top quarks, a W boson produced in association with jets, or multiple jets produced through the strong interaction. The consistency of BSM models with the data is tested using a likelihood fit that accounts for BSM contributions to the control samples.

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Date submitted: 10 Jan 2013

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