

Abstract Submitted  
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**Heavy Stable Charged Particle Physics and Discovery Potential at CMS** JIE CHEN, University of Kansas, CMS COLLABORATION — Heavy Stable Charged Particles are predicted by various Super Symmetry and Extra Dimension models. Experimentally, they can be identified by exploiting their unique signature: a high momentum particle of the order of a hundred GeV with a low relativistic  $\beta$  value. In this talk, we will describe four models predicting different types of Heavy Stable Charged Particles and use them as benchmarks for the search analysis strategy at CMS experiment. We will also show their potential reach at CMS with data based on  $100 \text{ pb}^{-1}$  and  $1 \text{ fb}^{-1}$  of integrated luminosity.

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