

Abstract Submitted
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Cosmology in the Focus Point Region at the Large Hadron Collider ABRAM KRISLOCK, BHASKAR DUTTA, WILL FLANAGAN, ALFREDO GURROLA, TERUKI KAMON, NIKOLAY KOLEV, MIKE VANDYKE, Texas A&M University — In the focus point region of supersymmetric parameter space, all of the scalar supersymmetric particles are very heavy. Thus, they are not able to contribute to the early universe annihilation processes of the lightest neutralino, the dark matter candidate in this model. Only the charginos and neutralinos can contribute to such annihilations, which determine the relic density of dark matter. In supersymmetry, the masses of charginos and neutralinos depend only on the model parameters μ , $\tan(\beta)$, and $m_{1/2}$. This talk will focus on determining these three parameters and the dark matter content from neutralino and chargino mass measurements at the LHC. Also, the method for propagating the uncertainties of such determinations to the uncertainty in the relic density will also be discussed.

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