

Abstract Submitted  
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**Energy Spectrum of Cygnus Diffuse Excess with MILAGRO** JESSICA GALBRAITH-FREW, Michigan Tech, MILAGRO COLLABORATION — An analysis of the diffuse spectrum can help further the understanding of high-energy cosmic rays in our Galaxy. Models of the propagation of cosmic rays in the galaxy result in a predicted diffuse gamma-ray flux for the sky. EGRET has observed an excess of diffuse gamma rays (relative to this model) in the GeV range. Milagro has also measured an excess of diffuse gamma rays at 15TeV, which was also well above the model's prediction. The TeV excess in the Cygnus Region of the galaxy shows the largest diffuse excess in the Milagro data. In order to understand this excess better, the data was reanalyzed. Using a new analysis technique allows us to reconstruct the spectrum of the diffuse emission. In my presentation, I will present results based on the new analysis technique that include the complete Milagro data set.

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