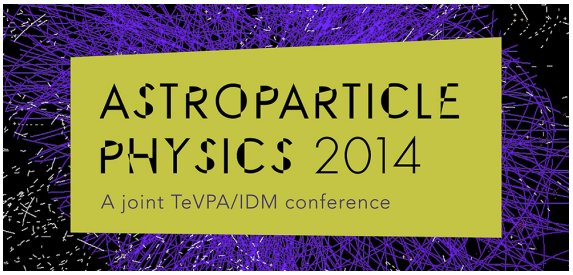

Contribution ID: **315** Type: **not specified**

Updated antiproton, positron and radio limits on light dark matter

Thursday, June 26, 2014 3:15 PM (10 minutes)

In this brief presentation, I will discuss how cosmic-ray and radio observations impose stringent constraints on dark matter (DM) candidates with masses in the ~1-50 GeV range. We find strong bounds on DM annihilating into light leptons, or democratically into all leptons from cosmic ray positron data, while complementarily, cosmic ray antiproton and radio data show considerable tension with DM annihilation into any combination of quark final states and tau lepton pairs respectively. Taken together, these bounds present a significant challenge for a DM interpretation of the GeV excess in gamma rays that has been observed in the inner Galaxy.

Presenter: VOLLMANN, Martin

Session Classification: Gamma-Ray Astrophysics

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