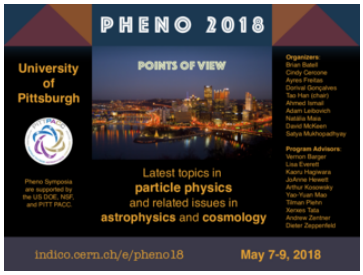

Contribution ID: **481** Type: **parallel talk**

Gravity-Mediated Dark Matter Annihilation in the Randall-Sundrum Model

Monday 7 May 2018 18:00 (15 minutes)

Observational evidence for dark matter stems from its gravitational interactions, and as of yet there has been no evidence for dark matter interacting via other means. We examine models where dark matter interactions are purely gravitational in a Randall-Sundrum background. In particular, the Kaluza-Klein tower of gravitons which result from the warped fifth dimension can provide viable annihilation channels into Standard Model final states, and we find that we can achieve values of the annihilation cross section, $\langle \sigma v \rangle$, which are consistent with the observed relic abundance in the case of spin-1 dark matter. We examine constraints on these models employing both the current photon line and continuum indirect dark matter searches, and assess the prospects of hunting for the signals of such models in future direct and indirect detection experiments.

Summary

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