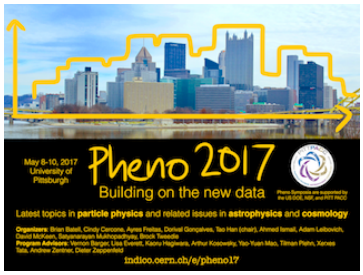

Contribution ID: **363** Type: **parallel talk**

Non-minimal Dark Sector Phenomenology: Prelude

Tuesday, 9 May 2017 15:15 (15 minutes)

The existence of dark matter (DM) in the universe is strong evidence that new physcs beyond the Standard Model is needed to explain relevant phenomenology. As we know little about DM properties, many well-motivated new physics models consider the minimal dark/hidden sector scenario, "forgetting" other members in the hidden sector. Furthermore, DM experiments are designed and results are interpreted in the context of the minimal hidden-sector scenario. In this talk, I will discuss some interesting DM phenomena under non-minimal hidden-sector
framework which would not emerge in the minimal setup and point out that they may alter the existing DM search paradigm and offer a new avenue towards understanding DM phenomenology. This talk will be a prelude to the two talks devoted to discuss 1) Dark Matter "Collider" as a form of DM direct detection experiments and 2) Dark Matter "Transporting" Mechanism to explain cosmic positron excesses reported by satellite-based DM indirect detection experiments.

Summary

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