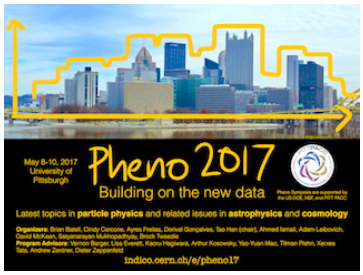

Contribution ID: **224** Type: **parallel talk**

Gravitational Waves from Dark Matter Triggered Electroweak Phase Transition and Higgs Couplings

Monday, 8 May 2017 15:15 (15 minutes)

Since the detection of the gravitational wave(GW) signals by LIGO, an increasing attention has been given to the GWs generated during the first order Electroweak phase transition(EWPT), a process essential for a successful generation of the baryon asymmetry in the universe. I will present in this talk a scenario where such GWs are generated during a two step EWPT triggered by the dark matter and discuss its discovery prospects in spaced-based interferometers as well as implications on the model from requirement of a strongly first order EWPT and dark matter phenomenology. I will future explore the complementarity in determining the Higgs couplings between measurements at colliders and GW detections. This talk is based mainly on the recent work arxiv:1702.02698.

Summary

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