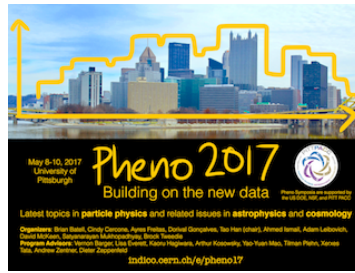Contribution ID: **394**   Type: **parallel talk**

Blind Spot for neutralino Dark Matter

Monday 8 May 2017 16:30 (15 minutes)

We study the constraints on neutralino dark matter in minimal low energy supersymmetry models and the case of heavy lepton and quark scalar superpartners.
For values of the Higgsino and gaugino mass parameters of the order of the weak
scale, direct detection experiments are already putting strong bounds on models
in which the dominant interactions between the dark matter candidates and nuclei
are governed by Higgs boson exchange processes, particularly for positive values of
the Higgsino mass parameter . For negative values of higgsino mass, there can be destructive
interference between the amplitudes associated with the exchange of the standard
CP-even Higgs boson and the exchange of the non-standard one. This leads to specic regions of parameter
space which are consistent with the current experimental
constraints and a thermal origin of the observed relic density. In this talk, I am going to discuss
the current experimental constraints on these scenarios, as well as the future experimental probes, using a
combination of direct and indirect dark matter detection and
heavy Higgs and electroweakino searches at hadron colliders.

Summary

Authors: HUANG, Peisi (Texas A&M University); ROGLANS, Roger (University of Chicago); SPIEGEL, Daniel (University of Chicago); SUN, Yitian (University of Chicago); WAGNER, Carlos E.M. (University of Chicago)

Presenter: HUANG, Peisi (Texas A&M University)

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