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## Progresses on Minimal Dark Matter

*Monday, June 23, 2014 2:30 PM (15 minutes)*

We extend the Standard Model with a new particle, chosen from those that are automatically stable without adding any extra symmetry to the theory. Despite being a potential Dark Matter candidate, other motivations for such a new state will be discussed, like the stabilisation of the EW vacuum. Its phenomenology is controlled by a single parameter, its mass, which is fixed in the multi-TeV range if the correct relic abundance is imposed. Prospects for direct detection of such a Dark Matter candidate are not promising, and indirect detection ones suffer from large astrophysical uncertainties. This makes particularly interesting the study of future colliders searches of this state, for which we present some preliminary results.

The phenomenology we discuss is relevant also for other widely studied theories, in particular for models of Supersymmetry with coloured sparticles beyond the LHC reach.

### Summary

The talk will present original content in the aspects of both model building and phenomenology.

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