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## Perturbative Unitarity and Bound States in the Dark Sector

*Tuesday 10 May 2016 17:15 (15 minutes)*

See above

### Summary

I will present constraints on simplified ‘portal’ models of dark matter due to demanding perturbative unitarity of all scatterings. This gives an upper bound for the dark matter mass given a standard thermal history of the universe. I will also discuss the contribution of non-perturbative phenomena, particularly bound state formation and subsequent decays to standard model particles, to the freezeout process.

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