

## Dark matter direct detection at one loop

*Thursday 24 May 2018 14:00 (20 minutes)*

The strong direct detection limits indicate that dark matter may not directly couple to quarks and consequently direct detection only occur at loop level. We study direct detection in the prototype example of an electroweak singlet dark matter fermion coupled to an extended dark sector composed of a new fermion and a new scalar. We also discuss the cases if either the new fermion or scalar is a SM particle. The results can be applied to many different scenarios. We specifically discuss its application to a radiative neutrino mass model.

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**Session Classification:** Parallel Session on DM