

# Unified Halo-Independent Formalism for Direct Detection Experiments

*Tuesday 6 February 2018 12:40 (15 minutes)*

In this talk I will present a new formalism that quite generically allows for the comparison of direct dark matter detection data in a halo-independent manner. This formalism, based on theorems from convex geometry, effectively eliminates all caveats that had limited the applicability of previously developed halo-independent methods; for example, halo-independent comparisons can now be made between putative measurements of the annual modulation and upper limits on the scattering rate in a statistically unambiguous way.

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