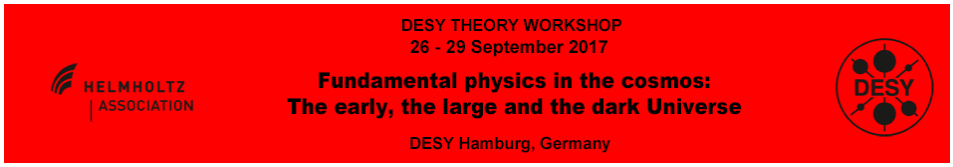


Contribution ID: **47** Type: **not specified**

# Kinetic decoupling of dark matter: how it affects the relic abundance

*Wednesday 27 September 2017 15:08 (17 minutes)*

Kinetic interaction (e.g., elastic scatterings) between dark matter particles and those in the thermal bath does not change the dark matter number, but it may affect the relic density of dark matter.
In particular it plays an essential role in determining the relic abundance of strongly interacting massive particles, which may solve issues in the (sub-)galactic structure formation of the conventional cold dark matter model (e.g., weakly interacting massive particles).
In this talk we see how the kinetic interaction can be important for the dark matter freeze-out.
Proposed portals, which kinetically connect the strongly interacting massive particles to the standard model plasma, are also discussed.

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**Session Classification:** Parallel Session: Cosmology & Astroparticle Physics - Dark Matter

**Track Classification:** Cosmology & Astroparticle Physics