

Freeze-in at Strongly Coupling in the Z' Model

We consider the possibility for Dark Matter (DM) freeze-in occurring at high values of the couplings between the DM and the SM states. Such a possibility requires a reheating temperature of the Universe below the value of the DM mass. Contrary to conventional freeze-in scenarios, the values of the DM couplings required by the correct relic density are within the reach of Direct Detection experiments and LHC searches.

In this talk, we will illustrate the aforementioned scenarios considering a particle physics model in which a fermionic DM candidate interacts with a Z' boson, possibly emerging from a dark $U(1)$ symmetry.

Title of the Poster/Talk

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Primary authors: CABO ALMEIDA, David (University of Messina (Italy)); ARCADI, Giorgio (Istituto Nazionale di Fisica Nucleare); LEBEDEV, Oleg (University of Helsinki)

Presenter: CABO ALMEIDA, David (University of Messina (Italy))

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