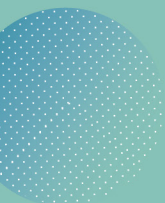




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The silent dark sector: a field-theory approach to unified dark fluids with vanishing speed of sound

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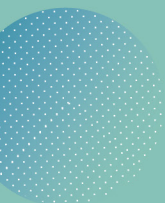
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Abstract

We introduce a novel class of field-theory models that provide a unified description of the dark sector as a single perfect fluid with vanishing sound speed. These models also admit the interpretation of cold dark matter interacting with vacuum energy while avoiding any phantom behavior and including standard Λ CDM as a particular case. Built upon a single scalar field invariant under transverse diffeomorphisms, the framework naturally implements the constraints imposed in the so called mimetic models. We analyze a particular simple example exhibiting an effectively evolving dark energy and find that it can reproduce the DESI best-fit CPL evolution with the same number of free parameters.

