Effective field theories for cosmological fluids, solids and supersolids

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I will review some cosmological applications of the effective field theories for condensed matter systems, characterised by the spontaneous symmetry breaking for spacetime symmetries. The associated Goldstone bosons represent the low-energy excitations, the phonons, of self-gravitating media (such as solids, fluids, superfluids and supersolids). Such an effective approach can be used to give a very general modelling of the dark sector based on symmetries, possibly explaining the accelerated expansion of the Universe.

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