Dynamics and Cosmology of Self-Gravitating Media

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We study the dynamics of cosmological perturbations around a FLRW Universe in the presence of a generic self-gravitating medium by using an effective field theory approach. The impact of intrinsic entropy perturbation for Perfect fluids are studied as working example. Moreover, one can show that under rather mild conditions, no ghost-like instability is present for any wavelength. As a result, exploiting the medium interpretation, a generic massive gravity model with six degrees of freedom is perfectly viable.