



Inflation and primordial non-Gaussianities of "generalized Galileons"

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We set up cosmological perturbation theory and study the cosmological implications of the so-called "generalized Galileon" developed in \cite{Deffayet:2011gz,horndeski}. This is the most general scalar field theory whose Lagrangian contains derivatives up to second order while keeping second order equations of motion, and contains as sub-cases Λ -inflation, G -inflation and many other models. We calculate the power spectrum of the primordial curvature perturbation, finding a modification of the usual consistency relation of the tensor-to-scalar ratio in Λ -inflation or perfect fluid models. Finally we also calculate the bispectrum, which contains no new shapes beyond those of Λ -inflation.

Comments: 19 pages, no figure. Version 2, error corrected leading to modified conclusion; v3, matching the JCAP version

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