General Relativity and Quantum Cosmology

Cosmological Perturbation Theory With Background Anisotropic Curvature

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The theory of cosmological perturbations is extended to spacetimes displaying isotropic expansion but anisotropic curvature. The perturbed Einstein equation and Boltzmann equations for massless and massive particles are derived in a general gauge and a decomposition of perturbations into harmonic modes and moments is proposed. Generalization to the case where anisotropic expansion is also present in the background is discussed.

Subjects: **General Relativity and Quantum Cosmology (gr-qc)**; Cosmology and Extragalactic Astrophysics (astro-ph.CO)

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