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Curvature and isocurvature perturbations in two-field inflation

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We study cosmological perturbations in two-field inflation, allowing for non-standard kinetic terms. We calculate analytically the spectra of curvature and isocurvature modes at Hubble crossing, up to first order in the slow-roll parameters. We also compute numerically the evolution of the curvature and isocurvature modes from well within the Hubble radius until the end of inflation. We show explicitly for a few examples, including the recently proposed model of 'roulette' inflation, how isocurvature perturbations affect significantly the curvature perturbation between Hubble crossing and the end of inflation.

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