Constant-Roll Warm Inflation within Rastall Gravity

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Abstract : This research has a recently proposed strategy to find the exact inflationary solution of the Friedman equations in the context of the Rastall theory of gravity (RTG), known as constant-roll warm inflation, including dissipation effects. We establish the model to evaluate the effective potential of inflation and entropy. We develop the inflationary observable like scalar-tensor power spectra, scalar-tensor spectral indices, tensor-to-scalar ratio, and running of spectral-index. The theory parameter λ is constrained to observe the compatibility of our model with Planck 2013, Planck TT, TE, EE+lowP (2015), and Planck 2018 bounds. The results are feasible and interesting up to the 2σ confidence level.
Keywords : modified gravity, warm inflation, constant-roll limit, dissipation
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