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The Smallest Warm Little Inflaton

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In this work in progress, we consider a modified version of the Warm Little Inflaton inflationary model by eliminating one of the fields interacting with the inflaton field. At a first instance, this appears to preclude the slow-roll dynamics by introducing large corrections to the slow-roll eta parameter. However, we show that this behaviour is fictitious and, in reality, the temporal average of such corrections describes its true behaviour and slow-roll is possible. Then, we analyse the spectrum of the inflaton perturbations and notice that parametric resonance may occur, leading to an additional particle production mechanism during warm inflation. Finally, we discuss the influence of such a mechanism in the inflaton perturbations and related CMB observables.

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