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## Non-thermal leptogenesis from inflaton decay

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There is growing evidence that the early Universe experienced inflationary expansion, yet no consensus has been drawn on the details. Meanwhile, neutrino physics is entering a precision era, making more information on masses and mixings available. We consider a neutrino path to the early Universe confronting the situation above. With right-handed neutrinos (RHNs) coupling to the inflaton, the baryon-antibaryon asymmetry may connect to inflationary observables, leading to a testable framework for particle physics and cosmology. We investigate non-thermal leptogenesis from inflaton decays in the type-I seesaw model, where a complex scalar is introduced to generate the Majorana mass of the RHNs. We find four characteristic limits with working conditions to identify them and show the combined parameter space.

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