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Gravitational Waves and Gravitino Mass in No-Scale SUGRA Wess-Zumino model with Polonyi Term

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No-Scale SUGRA has attracted considerable interest as a framework for inflation as it provides a natural realisation of Starobinsky-like inflation models. Recently, it was shown that suitable modifications of the Kahler potential produce a kink on the inflaton scalar potential that generates an enhancement in the power spectrum, leading to the production of Gravitational Waves. In this talk, we revisit a No-Scale inflationary model that breaks SUSY at the end of inflation due to the presence of a Polonyi term, and we study how the proposed Kahler potential modifications can lead to the production of Gravitational Waves. To find suitable points in the parameter space, we employ an Artificial Intelligence scan based on an Evolutionary Strategy algorithm, and study the phenomenological implications of the Gravitational Waves spectrum and the gravitino mass.

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