

Whispers from the Dark Universe - Particles & Fields in the Gravitational Wave Era

CLUSTER OF EXCELLENCE
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DESY THEORY WORKSHOP

WHISPERS FROM THE DARK UNIVERSE – PARTICLES & FIELDS IN THE GRAVITATIONAL WAVE ERA

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24 - 27 September 2024 DESY Hamburg, Germany



Contribution ID: 121

Type: **not specified**

Preheating the String Axiverse: non-perturbative production of stringy axions

Wednesday 25 September 2024 17:04 (17 minutes)

The standard reheating process after inflation can be preceded by preheating, a phase where the oscillations of the inflaton field at the bottom of its potential lead to explosive production of particles via parametric resonance, potentially altering the history of the universe.

I will discuss an inflating modulus, coupled to an axion via a typical potential coupling coming from type IIB string theory on Calabi-Yau orientifolds and explore the consequences of parametric resonance in the string axiverse.

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Session Classification: Parallel Wednesday Strings & Mathematical Physics

Track Classification: Strings & Mathematical Physics