

# Generation of Axions and Axion-Like Particles through Mass Parametric Resonance induced by Scalar Perturbations in the Early Universe

*Tuesday, 29 July 2025 12:00 (30)*

We show that scalar perturbations in the early universe could produce a significant amount of these particles primarily through mass parametric resonance effects. Notably, this mechanism does not generate additional isocurvature perturbations.

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**Session Classification :** Morning Session