



**UNIVERSITÄT
BIELEFELD**

Fakultät für Physik

Jondalar Kuß

Universität Bielefeld

Quantum-to-Classical Transition of Adiabatic and Entropy Perturbations in the Presence of an Axion-like Particle

In my Master's thesis at Göttingen University I studied the effect that an axion-like particle being present during inflation as a light scalar field could have on the primordial perturbations, using the formalism of squeezed states. The axionic field becomes highly squeezed during inflation and remains so after reheating. Initially, it merely produces isocurvature perturbations, curvature is only sourced when the Hubble parameter becomes comparable to the axion mass.

**Thursday, 20 January 2022,
14:15 in D6-135 + via Zoom
www.physik.uni-bielefeld.de**