

Summary

- Coupled dilute gas Bose-Einstein condensates can behave as relativistic fields
- Setups exist to mimic end-of-inflation (self-induced parametric resonance \rightarrow nonlinearity)
- Linear theory : BEC and cosmological calculation match, deviations controlled by tunable parameter
- Solitary waves in nonlinear regime
- Persists in more realistic case of trapped BEC

