

JUNQI ZHANG

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EDUCATION

University of Wisconsin - Madison

PhD in Physics

Madison, WI

Started Aug. 2025

University of Wisconsin - Madison

BS in Physics and Philosophy

Madison, WI

Jan. 2023 – May. 2025

RESEARCH INTEREST

Early universe cosmology, particularly inflationary physics, reheating and associated observables.

RESEARCH EXPERIENCE

Inflationary Cosmology

Advisor: Prof. Daniel Chung

Madison, WI

Mar 2024 – Sep 2024

- **Cosmological Perturbation:** Reproduced the basic results of the linear order cosmological perturbation with multiple scalar fields under uniform curvature gauge.
- **Isocurvature Perturbation:** Investigated double monodromy inflation model and embedded the monodromy axion model into the isocurvature perturbation with realistic parameters as the dominant inflaton with a superheavy dark matter spectator. Computed spectator perturbation spectrum in the superhorizon region.

TEACHING EXPERIENCE

TA for Physics 207: General Physics I (Fall. 2025)

SKILLS

Languages: Mathematica, Julia, Python