

Gravitational waves from phase transitions during inflation

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Due to the large excursion of the inflaton field. The parameters, such as mass and couplings of the fields coupled to the inflaton field, may change drastically during inflation. And thus phase transitions may be induced. In this talk, I am going to discuss the gravitational wave signals produced by phase transitions during inflation. For first-order phase transitions, I will show that the gravitational wave spectrum has a unique oscillation feature. For second-order phase transitions, I will show that topological defects produced during the phase transition will produce detectable gravitational waves.

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