

# 茨城大学素粒子論研究室セミナー

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教室：@E301

Title: First-order phase transitions in the early Universe and their possible signatures

## 概要

Over the next few decades, we will have an exciting opportunity to probe the early Universe with gravitational wave observations using space interferometers. A particularly interesting scenario is that of a first-order phase transition, in which bubbles of true vacuum nucleate, expand, and collide, involving the dynamics of surrounding plasma particles. In this talk, we review both the microphysical and macrophysical aspects of this scenario, from the high-energy physics that triggers phase transition to the production of gravitational waves and their observational prospects, and then discuss some recent developments.