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Type: **Talk**

Bubble-assisted Leptogenesis

Monday, 18 December 2023 09:30 (45 minutes)

In this talk, we discuss leptogenesis occurring at the time of the first order phase transition of $U(1)_{B-L}$ breaking, dubbed as bubble assisted leptogenesis, in which the strong wash-out can be circumvented due to an efficient departure from equilibrium offered by the relativistic expansion of true phase bubbles. Taking carefully into account all the efficiency factors such as penetration rate, dilution by reheating as well as depletion by annihilation, we find that a successful leptogenesis can be achieved for masses as low as 10^9 GeV even in the usual strong wash-out regime. We also examine the typical gravitational wave signatures possibly observable at terrestrial interferometers.

Institution

Designation

Faculty

Reference publication/preprint

Presenter: CHUN, Eung Jin

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