

Phenomenology 2025 Symposium



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Electroweak Baryogenesis in the Real Singlet Model

Tuesday 20 May 2025 18:00 (15 minutes)

Electroweak Baryogenesis is a commonly studied mechanism to explain the baryon asymmetry of the universe. By introducing a real scalar singlet to the Standard Model, the electroweak phase transition can become strongly first order and satisfy the out-of-equilibrium Sakharov condition. Additionally, contributions from the scalar to the top quark mass term can provide the necessary CP violation. In this talk, I will go over the methods used to compute relevant quantities needed to determine the asymmetry for this model. The relevant quantities will include the critical temperature, bounce action, nucleation temperature, field profiles, wall velocity, and wall width.

Mini Symposia (Invited Talks Only)

Plenary (Invited talks only)

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