

Supercooled Phase Transitions with Radiative Symmetry Breaking (online)

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First-order phase transitions produce gravitational waves and primordial black holes. They always occur in field theories where symmetries are radiatively broken and masses are correspondingly generated. These theories predict a period of supercooling: phase transitions become effective at temperatures much smaller than the symmetry-breaking scale. I will discuss a model-independent approach to study phase transitions in this scenario, which can be adopted if supercooling is strong enough. Perturbative methods can be used to determine the effective action and such model-independent approach allows us to obtain ready-to-use formulas that can be applied to any specific model of this sort.

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