

Impact of Cosmological Phase Transitions on FIMP Dark Matter

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For feebly interacting massive dark matter particle (FIMP) dark matter, variations in particle mass during cosmological phase transitions can affect the dark matter production mechanism. Meanwhile, reheating, entropy injection, and phase coexistence during phase transitions, especially supercooled phase transitions, also influence the evolution of dark matter abundance to varying degrees. This talk will review their overall impacts on the relic density for different FIMP DM scenarios.

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