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Updated Constraints and Future Prospects on Majoron Dark Matter

Thursday, 15 June 2023 15:20 (20 minutes)

Majorons are (pseudo-)Nambu-Goldstone bosons associated with lepton number symmetry breaking due to the Majorana mass term of neutrinos introduced in the seesaw mechanism. They are good dark matter candidates since their lifetime is suppressed by the lepton number breaking scale. We update constraints and discuss future prospects on majoron dark matter in the singlet majoron models based on neutrino, gamma-ray, and cosmic-ray telescopes in the mass region of MeV-10 TeV.

Secondary category for the parallel session (optional)

Neutrino Physics

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