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Magnetic Moment of Leptons in a Medium SAMINA MASOOD, University of Houston, Clear Lake — We show that the magnetic moment of leptons is significantly modified at finite temperature and density as compared to the corresponding vacuum value. We compare the magnetic moment of all different leptons near nucleosynthesis temperature to show the relevance of the calculations with the early universe. It is shown that the significance of thermal corrections depends on the temperature of the universe and the respective lepton mass. In the early universe, particle mass was growing quadratically with temperature which affects the corresponding value of magnetic moment.

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