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Spectra and flow of magnetised lepton pairs

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Recently, we have calculated the dilepton rate coming out of a hot and dense QCD medium under an arbitrary strength of magnetic field [1]. A considerable amount of enhancement in the rate has been observed in the presence of the magnetic field. We calculate the p_T spectra and the anisotropic flow of dileptons using a hydrodynamical model framework and the new rate [2]. Both spectra and anisotropic flow are found to be affected significantly due to the presence of the background field. We discuss the implications of our findings and the possibility of using magnetised dileptons as magnetometers for heavy-ion collisions.

1. Das et al [Phys. Rev. D 106, 056021 (2022)]
2. Das et al [In preparation]

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