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## **Effect of magnetic fields on equatorial circular orbits around Kerr spacetimes**

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In this work we analyze the effects of an external magnetic field on charged particles following equatorial circular orbits around a Kerr spacetime, both in the black hole and the naked singularity cases. Understanding these phenomena is of great importance because equatorial circular orbits are a key ingredient of (simple) accretion disc models. In particular we study two important magnetic field configurations: a) a uniform magnetic field aligned with the angular momentum and b) a dipolar magnetic field. We center our attention on the effect of these external fields on the marginally bound and marginally stable equatorial circular orbits because they are potentially observable quantities that could be useful to determine the nature of the central object. Using a perturbative approach we are able to give analytic results and compare (in the black hole case) with previous results.