

We summarize and explain the mathematical procedure that allows us to find the closed form of the magnetic field generated by a test current loop in Kerr spacetime. We consider axisymmetric placement of the loop for all three cases of the Kerr background: below-extreme black hole, extreme black hole, and naked singularity. The field is obtained by differentiating the effective Green function of the Debye potential, which is expressed in terms of elliptic integrals.