

# Emission from Magnetized Black Holes and KN Black Holes

*Tuesday, 20 June 2023 09:00 (45 minutes)*

Charged black holes have been proposed as a central engine for GRBs. Damour and Ruffini proposed Schwinger mechanism of KN black holes as the central engine [Phys. Rev. Lett. 35, 332 (1975)] while Blandford and Znajek proposed that the magnetic fields surrounding rotating black holes supported by current of disks induce strong electric fields to produce electron-positron pairs for GRBs [Mon. Not. R. Astron. Soc. 179, 433 (1977)]. In this talk, strong field QED effects such as the Schwinger mechanism, vacuum polarization of magnetized black holes [Moss, Stasiak, arXiv:2303.01119, 2023] and KN black holes are studied and possible methods are discussed to probe underlying physical scenarios through observations by space telescopes in the future.

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