

Electromagnetic field of a charged particle, asymptotically approaching Schwarzschild black hole

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The knowledge of electromagnetic field of charged particles in the vicinity of a black hole is important for the study of many astrophysical phenomena, in particular of gamma-ray bursts and jets of supermassive black holes. In the present work we determine multipole coefficients of electromagnetic field for charged particle, radially falling into Schwarzschild black hole and consider the limit of approaching to the event horizon.

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