

Chaos in Spacetimes with Magnetic Dipoles

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In this contribution, we present a study of the chaotic behavior of geodesics in an approximate spacetime with a magnetic dipole and mass quadrupole.

The chaotic behavior of geodesics is a key aspect of understanding the underlying structure and dynamics of astrophysical systems.

This spacetime was derived from the Kerr-Newman metric by incorporating the mass quadrupole and the magnetic dipole as perturbations.

The metric satisfies the Einstein-Maxwell equations up to third order.

Nivel de formación

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