

Innermost stable circular orbits in dilatonic Einstein-Gauss-Bonnet theory

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ABSTRACT

Rapidly rotating compact objects are considered laboratories to test General Relativity and theories beyond. Motivated by string theory astrophysical compact objects in dilatonic Einstein-Gauss-Bonnet theory (dEGB) were studied in [1],[2],[3],[4] showing the effects of the dilaton on the astrophysical signatures of black holes and neutron stars. Solutions in General Relativity are compared with the results obtained in dEGB, especially the innermost stable circular orbit (ISCO) which is affected by the presence of the scalar field. It is expected that such effects might be observable in astrophysical systems.

References

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