

Rotating compact stars using M.I.T bag model and QHD-I model

In this work we study hybrid composition stars using the M.I.T bag model and Walecka's linear model (QHD-I) for the core. For the region of lower density matter, i.e, the crust, we have used the Negele-Vautherin equation of state. When studying non- rotating stars, it is necessary to solve the conventional form of TOV's equations. However, for rotating stars, the metric must be modified to get the appropriate equations for pressure, gravitational and baryon masses. In order to obtain the result for rotating stars, we have used the free code RNS. Finally, we compared the M-R relation for static stars and rotating stars with the most recent corresponding results from pulsar observations.

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