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Theoretical model of compact stars: Vanishing complexity approach

Compact stars are unique laboratory for studying and testing extreme conditions in terms of density and gravity. In this paper under the framework of General Relativity we have developed a theoretical model representing compact stellar objects. For this we follow the Herrera's vanishing complexity condition in addition of assuming a particular geometry corresponding to g_rr component. All the conditions required for a physically acceptable compact sources have been tested. The developed model has been verified with the current estimated data from some observed pulsars.

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