

Anisotropic Solutions for Stellar Configuration

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Abstract

We study the formulation of stellar structure equations for anisotropic matter distribution in the framework of general relativity. For this purpose, we construct the field equations as well as structure equations. In order to solve these equations, a systematic and optimistic approach, i.e., gravitational decoupling scheme is taken into account. We obtain relativistic models for more intricate form of sources from the simplest source. Furthermore, some constraints on source components are employed which may lead to physically interesting results. The characteristics of constructed relativistic models for stellar interior are examined by plotting the material variables. Finally, we analyze the physical viability as well as stability of the stellar configuration.

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