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Pressure anisotropy effects on surface curvature of the neutron star

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It is the most common assumption is that the pressure inside the neutron star (NS) is isotropic in nature. In this study, we calculate the anisotropic pressure inside the NS and calculate its effects on some properties such as mass, radius, compactness, and surface curvature. To obtain the NS properties, we use the relativistic mean-field equation of states. We observed that anisotropy has significant effects on the surface curvature of the NS.

Session

Astroparticle Physics and Cosmology

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