

Oblique Rotators and General Relativistic Calculations

Neutron stars are very dense objects found in the universe. These neutron stars can have very high angular velocity about their axis, such fast-spinning neutron stars are also known as pulsars. The rotation axis of a pulsar is defined as the axis around which a star rotates, similarly, we can define an axis called a magnetic axis, which is the axis along which the magnetic field lines originate. In an idealistic scenario, these two axes are not pointed in the same direction, thus forming a finite angle between them. Such stars are called oblique rotators. Pulsars having very high angular velocity can also result in the deformation of the shape of the star thus forming a spheroid. In this talk, I will present how we can model such stars considering general relativistic effects. I will also explain how the magnetic fields, charge density at the surface of the star, and power-loss of such a star varies

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