عنوان مقاله:

Relativistic Stellar Models with Quadratic Equation of State

محل انتشار:

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خلاصه مقاله:

In this paper, we have obtained and presented new relativistic stellar configurations considering an anisotropic fluid distribution with a charge distribution and a gravitational potential Z(x) that depends on an adjustable parameter. The quadratic equation of state based on Feroze and Siddiqui viewpoint is used for the matter distribution. The new solutions can be written in terms of elementary and polynomial functions. We have investigated that the radial pressure, metric coefficients, energy density, anisotropy factor, charge density, mass function have been well defined and are regular in the interior of these new models, which satisfy all physical properties in a realistic star.

کلمات کلیدی:

Stellar configurations, Anisotropic fluid distribution, Quadratic equation of state, Charge distribution, Adjustable parameter, Gravitational potential