

Analytic Inversion of the TOV Equation and EOS Predictions From M,R Data

Tuesday, October 8, 2024 2:00 PM (30 minutes)

An analytic technique of inverting the TOV equation with accuracies within 1% in both energy density and pressure is presented. In addition, a method using correlations connecting M,R data and energy density, pressure information is presented, giving a method of inferring the EOS from observations that does not contain the usual prior uncertainties stemming from the use of parameterized or non-parametric EOS techniques.

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