

Polytropic stellar configurations in modified gravity

Wednesday, March 4, 2015 11:00 AM (1 hour)

Modified gravity models arise from different motivations but in cosmology are studied because of their properties that allow inflation or the current accelerated expansion.

We have concentrated on the local matter configurations and compared some modified gravity model properties to the general relativistic counterparts and observations.

The studied gravity models are cosmologically motivated $f(R)$ theories (CDTT and HS) and a scalar-tensor model class arising the O'Hanlon action.

We have numerically analyzed the physically parametrized polytropic stellar configurations with the above models to study their viability.

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