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VISCOUS CHAPLYGIN GAS IN $f(G)$ THEORY OF GRAVITY

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In this paper, we have considered Friedmann-Robertson-Walker space-time in the context of $f(G)$ theory of gravitation. The viscosity in presence of Chaplygin gas is taken as source of matter. Field equations are solved by using linearly varying deceleration parameter. Statefinder diagnostic pair $\{r, s\}$ is also investigated. It is found that the model is stable.

Keyword: *FRW space time: viscosity: Chaplygin gas: $f(G)$ gravity*

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ВЯЗКИЙ ГАЗ ЧАПЛЫГИНА В ТЕОРИИ ГРАВИТАЦИИ $f(G)$

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В данной работе рассмотрено пространство-время Фридмана-Робертсона-Уокера в контексте теории гравитации $f(G)$. Вязкость в присутствии газа Чаплыгина принимается в качестве источника материи. Уравнения поля решаются с использованием линейно изменяющегося параметра замедления. Также исследуется диагностическая пара состояния (r, s) . Установлено, что модель является стабильной.

Ключевые слова: *пространство-время Фридмана-Робертсона-Уокера: вязкость: газ Чаплыгина: гравитация $f(G)$*

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