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A NEW CLASS OF BIANCHI TYPE I COSMOLOGICAL MODEL FOR BULK VISCOUS BAROTROPIC FLUID WITH VARIABLE Λ-TERM IN GENERAL RELATIVITY

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ABSTRACT

Exact solution of Einstein's field equations with variable cosmological constant is obtained in presence of bulk viscous barotropic fluid for Bianchi type-I space time. To get a determinate solution of the field equations the average scale factor R^3, in the model is considered as a linear function of t and also the fluid obeys the barotropic equation of state. The physical aspects of the model with astronomical observations are discussed.

KEYWORDS: Cosmology, Exact Solution, Variable Λ, Barotropic Equation of State