

**ACCELERATING MAGNETIZED ANISOTROPIC DARK  
ENERGY COSMOLOGICAL MODELS IN SCALAR-TENSOR  
THEORY OF GRAVITATION**

**S. D. KATORE<sup>1</sup>, M. M. SANCHETI<sup>2</sup> AND N. K. SARKATE<sup>3</sup>**

<sup>1</sup> Department of Mathematics, S.G.B. Amravati University,  
Amravati-444602, India

<sup>2</sup> Department of Mathematics,  
R. A. Science College, Washim = 444505, India

<sup>3</sup> Department of Mathematics,  
A.E.S. Arts, Commerce and Science College,  
Hingoli - 431513, India

**Abstract**

We have studied the Kantowski-Sachs cosmological models with magnetized anisotropic dark energy fluid in the scalar-tensor theory of gravitation proposed by Brans-Dicke [1]. The solutions of the models are obtained by volumetric exponential expansion, power law expansion and power law relation between scalar field  $\phi$  and scale factor 'a'. The physical behaviors of the models have been discussed using some physical quantities.

---

Key Words : *Kantowski-Sachs universe, Dark energy and Brans-Dicke theory of gravitation.*

© <http://www.ascent-journals.com>