MICROGRAVITY SCIENCES AND PROCESSES SYMPOSIUM (A2)
Poster Session (P)

Author: Mr. Bimod Dev Panta
Nepal

DARK MEMBRANE THEORY

Abstract

Einstein's general theory of relativity and Newton's law of gravity is not adequate to explain the nature and effect of 'Dark Energy' and 'Dark Matter'. Both theories can't give details 'why the orbital speed does not fall as the distance increases from the center of galaxy?', 'when and how the dark energy and dark matter formed?' and 'Why Universe is accelerating?'.

I therefore proposed a new theory based on 'Temperature of universe (TOU)' (2.725 Kelvin) and 'Dark Membrane (DM)'.

I have extended the Stefan Boltzmann's Law and came up with

$\rho_(dark) = (3\sigma \ \mathrm{T}^4)/(\rho_(matter)BR^3)$

It predict the value of Dark Membrane Density (DMD) at 2.725 Kelvin. Then I calculate the maximum allowed velocity within this Dark Membrane using

$\vartheta^2 = (4\Pi \ \sigma \ \mathrm{T}^4 \lambda^4)/(h)$

It calculates the velocity of light with 1% error at 2.725 Kelvin and predicts that velocity of light varies with the fluctuation of TOU. This prediction allows deriving the relationship between distance and temperature.

I found that when the TOU decreases then the corresponding DMD decreases which result in increase in the distance. It implies that to travel same distance by the light takes longer time when the TOU decrease. This concludes that virtual acceleration of universe is the effect of fluctuation of TOU.

This and other derived formulas precisely calculate the value of acceleration due to gravity (g) and orbital velocity of planet and stars. This new theory is very close to solve the mystery of Dark Energy and Dark Matter.

Moreover result from calculation helps to demonstrate the CMBR is not the residue of BIG BANG. Similarly, some consequences of General Theory of relativity like 'Light Deflection and Gravitational Time Delay', 'Gravitational Lensing' and 'Frequency Shift' can be equivalently explain through this theory.