## Monthly Multidisciplinary Research Journal

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### **REVIEW OF RESEARCH**

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#### STUDY OF THE REPULSIVE GRAVITATIONAL FORCE DUE TO DARK ENERGY



#### **ABSTRACT:** -

he replica of the gravitational force of the universe growing in size and strength is a big part of this universe. Astronomers would be trying to locate the event that is growing remote supernovae universe, which is to take fingerprints, and hoped that the pace of expansion should slow down, but research has shown the opposite. This means that when they move away from each other and it causes a concept known as dark energy body to grow rapidly. The researchers concluded that more than half of the universe is made up of this dark energy. Because of this dark energy, a new kind of force is also called negative gravitational force. Many theorists also believe that it is known for this type of event known as the cosmological stability, but can not be accepted as overall due to it. This gravitational dark energy can have a major impact on fundamental physics. Apart from the suggestions that the universe is full with equal distance from zero point quantum energy. That there are theories that state particles with low mass electrons 10-39 times, so that certain changes in Einstein's general theory of relativity. Since the zeropoint energy density is required for the value, researchers are surprised that the value comes down a factor. The only evidence of cosmic acceleration has been a supernova discovered by the astronomers team

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has recently been accepting and dark energy exist. Precision another proof Wilkinson microwave probe Anisotropi dark energy (Dbluemapi) data with the cosmic microwave background (CMB) is also in the measurement. It has two broad projects, the largescale distribution of galaxies really two-degree field, respectively (2 DF) and the Sloan Digital Sky Survey (Sdiss).

**KEYWORDS:** Gravitational force, Dark Energy, Zero point quantum energy.

#### **INTRODUCTION:**

Two-thirds of the universe is dark energy. It used to be thought that the expansion of the universe was slowing down, but later we saw that expansion was rapidly increasing. The cosmologist described the incident responsible for the acceleration, called dark energy. The universe is full of ocean quantum zero energy or compression of new particles where it is a very small mass relative to the electron. Supernova data is evidence of cosmic acceleration, and the reason for the acceptance of dark energy is the reason. Wilkinson Microwave Anisotropic Probe (Dbluemapi) Precision measurement data, including the cosmological background (CMB), the current data on the location of the dark energy. large-scale distribution of galaxies - two-degree field (DF 2) and Sloan is also true to track data from two completed projects the Digital Sky Survey (SDIS). By combining data from WMAP, SDSS and other sources, the researchers reported an incident that occurred as an integrated saxophone effect. It has been discovered that the gravitational replication of dark energy has slowed down the decline of excessive matter areas in the

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universe. hot universe in the Big Bang, universe densely clustered galaxies and created a lot of cool and clastr clouds that today stretch rarest collection seen. Some evidence is also available and proven in association with WMAP, SDSS, etc. Four groups of independent researchers reported evidence for this incident known as the integrated effect of Sachs-Wolfe. These researchers found that because of the dark energy, gravitational forces negative slow collision of the dense area of matter in the universe. Thus the concept of the existence of dark energy has become more satisfying. In 1920, physicist Edwin Hubble discovered the expansion of the universe, which is the only event in the universe. It does not just describe describing the celestial bodies are displaced due to the attraction of neighboring bodies, but because of the large-scale structure of the universe expanding universe. There is an analogy to describe this as the speed of grape support in the cake. As the size of the cake increases the distance between the neighboring grapes that are around each other.

#### **REVIER OF LITERATURE;-**

On the largest angle scale of the anisotropic spectrum, another effect of dark energy is observed. As the CMB photons move toward us, they cross the gravitational potential wells of the substance. Due to the expansion, the depth of the potential well in the photon may change in the dark energized part. Thus, future photon or compound will be more or less envied, depending on whether the potential well is deep or shallow or not. This phenomenon is known as the integrated Sachs-Wolfe effect and the release of substances and leads to a weak correlation between the CMB anisotropi. Shows the correlated CMB effect with the Galaxy catalog (Freeman et al., 2008). Since the perforated temperature anisotropy power spectrum of the CMB is a typical angular scale, it is the hallmark of a specific anisotropy power spectrum in the case of a large scale structure. Barian acoustic load, are periodic variations in the density of the content baronics, Bariyn's early universe and bring the sound waves associated with the photon. Due to the expansion after the completion of the two components, the photon propagation, while Bariyn live live Bariyn's framed sound horizon at that moment. With regard to more and more Baronic Hypersensitivity, the specific length of the Dikupling Sound Horizon can be used as the default rule. After that, the magnitude of the celebration of two points of galaxies on the MPC that H0 (Eisenstein et al., 1998) can maintain against theories of formation of the structure to be inhibited.

#### **MATERIAL AND METHOD:-**

Because the dark energy equation that changes state observes the observable values because it affects the parameters of the cosmological parameters obtained by fitting the equations of these observable values. This section discusses the method for calculating the effect. The simulated data is generated to emulate the Fidicial universe. The simulated data refers to the universe of structure that gives the universe the specific forms of cosmology. In this way, the previous probability distribution of the edges, i. H. The expected value and uncertainty obtained for each cosmological parameter. Probability conflict / Expect value and error by analyzing a futuristic cosmology with a cosmological framework. The purpose of this analysis is to verify that the frame model can heal the physical values of the cosmological parameters used to generate forged data. Alternatively, someone may request that a particular BIG selection in the frame universe result in a bias in determining the parameter if the option does not match the Fidel universe. There are several ways to ensure that the previous delivery is a sample. One of the most common things is the Galman-Rubin convergence diagnosis (Galman and Rubin, 1992), which requires at least two rows. For each series, burn-in should be eliminated first. Then, in the Jailman-Rubin method, we compare the "variation of the inner chain"; Treat each series separately with a "Chain Chain Variation"; Treat all series as one series. When the chains are put together, these two units should get along with some tolerance. Quantitatively, this means that the ratio between the two variables, called "potential downscaling factor" for "R", should not be greater than 1 by a certain amount. Convergence is common with respect to R-1.1. A subsequent sample of the previous delivery may, for each cosmological parameter, obtain the average of all other parameters to estimate the previous probability distribution of the edges. Producing the mock data is the subject of the following section.



## Figure 1: Marginalized posterior probability distributions of case 1: ← CDM fiducial cosmology, CPL framework cosmology, using only WL. Red lines indicate fiducial values used to produce the mock data.



Figure 2: Marginalized posterior probability distributions of case 2: ← CDM fiducial cosmology, CPL framework cosmology, using SNe Ia and RD. Red lines indicate fiducial values used to produce the mock data. Notice that o8 is not calculated, since weak lensing data are not included.

#### **CONCULSION**

Discussion of the results of simulation obtained for cosmological evolution using parameterization of omega R as 0.3, omega M as 0.2 and varying omega lambda is given below.



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Above graph as shown is the cosmological evolution using parameterization of omega R as 0.3, omega lambda as 0.1 and omega M as 0.4. Above graph gives relationship between scale factor [normalized to present size] and time [km/Mpc]. As it can be seen from the graph that scale factor varies exponentially with time. As from above graph it can be observed that when time is 0.2 the corresponding value of scale factor is 0.5. Moving further it can be seen that when time becomes equals to 1 the corresponding scale factor becomes nearly equals to 1.5. As one moves further to the graph it is observed that when time becomes equal to 1.8 the corresponding scale factor becomes nearly equals to 3.8.

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