

Dark Flow in a Friedman Dust Universe with Einstein's Lambda

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October 7, 2008

Abstract

This is a short note about using the cosmological model that was introduced in a sequence of earlier papers under the title *A Dust Universe Solution to the Dark Energy Problem*, can be used to explain the recently observed dark flow of galaxies [42].

1 Introduction

The Friedman dust universe cosmological model is set within an infinitely extended flat 3-dimensional hyperspace which is not distinguishable from our physically experienced three dimensional space. However, it is *hyper* in the sense that at any epoch time, our physically expanding 3-space is a spherical finite part of it. Thus it is conceivable that there are other universes also within this hyperspace that could be outside our universe or even intersecting it.

2 Dark Flow

This is just a short note and indeed the clue to its point is already obvious in the introduction. However, to briefly elaborate, consider two close by universes, ours and one other. Each of these universes will exert a gravitational force along their line of centres determined by their total masses which will disrupt both universes local galactic motions resulting in within each universe motion towards its boundary.

3 Conclusions

It is suggested that the Friedman dust universe model can account for dark flow. Details of the model can be found in the references below and obtained from my website or other sources.

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