

## M-THEORY AND THE ETERNAL PRE-BIG BANG UNIVERSE MODEL PRODUCED

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### **ABSTRACT**

*M-theory reveals the magnificent physics in the 11 Dimension Hyperspace, that highly inspired the ekpyrotic 3 Dimensional physics, and most possibly all possibilities.*

**M** theory today presents the only possible unified way to describe the universe and all the physics we observe or might observe in our current state of existence.

In M universe a theoretical universe model I have built based on superstring theory. The geometric shape we call a circle is in fact and resemblance a superstring. The circle in reality though highly abstract in form has all string modes in superstring theory that reduce to only two modes from which we can derive the physics in M theory hence the unified Five string theories. In actual fact Pi is a ratio that describes the Natural Unitary magnitudes.

The circle is the most evident form of geometry after which Observable cosmic matter takes it form. From stars to planets and even entire galaxies. When in 3 dimensional spheres.

The universe is one Big lively pulsating membrane maybe a Fabric finely woven of the identical identical Pi Superstrings. Making it possible to get the grand picture by randomly sampling just a piece of these strings.

**M** theory when applied to predicts what we know as Dark matter and Dark energy as a fractal midterm of the linear expansion with lim 0-100 effortlessly.

**M** universe naturally has a missing mass a phenomena common to all natural systems.

The big bang event described in M-Theory is ordered and deterministic hence I tend to with inflation cycles happening at the same time even at present. A Temporal (time) view revealing this has been happening from infinity and will last to infinity.

Putting dark matter and Dark energy which makes up over 92% of our M-Brane universe really changes our modern perception of our 'Early view of the universe from the big bang model. Without altering any Physical equations derived so far.

The Big bang model can only describe 4.6% of our universe. Only detailing the cosmic microwave background as remainder of a very hot Ekpyrotic event. Whereas being true with cosmic inflation faithfully complementing the Big- Bang picture. The information it holds is quite minimal considering the discovery of new forms of Exotic matter hitherto unknown to cosmology that make up a very large percentage of the universe namely Dark matter and Dark energy. The big bang scenario is thus quite smoggy but accurate to the level it describes our universe and a stepping stone to further our exploration of the entire universe.

M universe naturally postulates that Dark matter and Dark Energy are 'cold 'in nature .Having a lower thermal value of 0°K and having an upper value of 3° K per cycle of which it hardly exceeds. With Thermo dynamical values in between, per oscillatory cycle.

The energy in the Super tension at these thermal values when lost could account for the Super energy

in the hot plasma matter postulated in the big bang theory and hence contribute to cosmic inflation due to the vast amount of matter greater than 91% being packed in a small volume hence Cosmic Inflation observable in our universe which I have referred in M universe to as the Trace.

The trace mode is an open universe oscillating within the large extra dimensions of an 11 dimensional closed Symmetric mode-The symmetric Traceless. Virtually transferring energy between the two modes. This energy can be observed physically as the CMBR (Cosmic Microwave Background Radiation) and the rest as observable matter i.e. stars galaxies and galactic clusters.

Being a cyclic model Matter and energy are being recycled. Dark matter is exotic matter making up the First term of the M universe Cosmological constant. This is nearest and interacts gravitationally with Physical matter. Hence could be recycling matter from ordinary matter contributing to super cooling i.e. annihilating old stars and galaxies and forming new ones out of recycled matter to infinity hence strongly coupled coupled gravitationally to ordinary matter and galaxies.