Cyclic Evolution of a Two Fluid Diffusive Universe

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Abstract : Complete scenario of cosmic evolution from emergent phase to late time acceleration (i.e. non-singular ever expanding Universe) is a popular preference in the recent cosmology. Yet one can't exclude the idea that other type of evolution pattern of the Universe may also be possible. Especially, the bouncing scenario is becoming a matter of interest now a days. The present work is an exhibition of such a different pattern of cosmic evolution where the evolution of Universe has been shown as a cyclic thermodynamic process. Under diffusion mechanism (non-equilibrium thermodynamic process), the cosmic evolution has been modelled as [emergent - accelerated expansion - decelerated expansion - decelerated contraction - accelerated contraction - emergent] .