Three fluid cosmological models in general relativity

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Abstract:

In this current work we try to understand the late time accelerated expansion of the universe using scalar field with potential. It studies consequences of three fluid mixtures in space using dynamical system analysis. These three fluid consists of dark matter, perfect fluid and scalar field with potential V. The use of this technique has allowed to understand behavior of various models of universe. We also try to determine the domination of particular fluid at certain stage in our universe along with certain stability using eigenvalues.