

# On Stability of Similarity Orbits

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The notion of stability plays an important role in dynamical systems. It has been extensively studied in various forms. Various properties of stability have been proved under the underlying spaces. However, if we consider similarity orbit to be of power sequence of norm-attainable operators, little has been done to investigate their stability. In this paper, we considered similarity orbit of power sequence of norm-attainable operators and employed the notion of convergence and spectral radius to investigate its stability. The result obtained may be useful in genetics via Markov's chain.

**Keywords:** Jordan canonical form, similarity orbits, spectral theory, stability