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## **Dynamical Systems and Fibonacci Numbers**

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**Abstract:** The Dynamical systems concept is a mathematical formalization for any fixed rule that describes the time dependence of a points position in its ambient space. e.g. pendulum of a clock, the number of fish each spring in a lake, the number of rabbits spring in an enclosure, etc. The Dynamical system theory used to describe the complex nature that is dynamical systems with differential equations called continuous dynamical system or dynamical system with difference equations called discrete dynamical system. The concept of dynamical system has its origin in Newtonian mechanics.

Keywords: dynamical systems, Fibonacci numbers, Newtonian mechanics, discrete dynamical system

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