

¿ What is a Strange Attractor ?

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abstract

This note presents a Strange Attractor

Introduction

Strange Attractor: an equation or fractal set representing a complex pattern of behaviour in a chaotic system.

- Lorenz system: $\frac{dx}{dt} = \sigma(y - x), \frac{dy}{dt} = rx - y - xz, \frac{dz}{dt} = xy - bz$.

Lorenz attractor

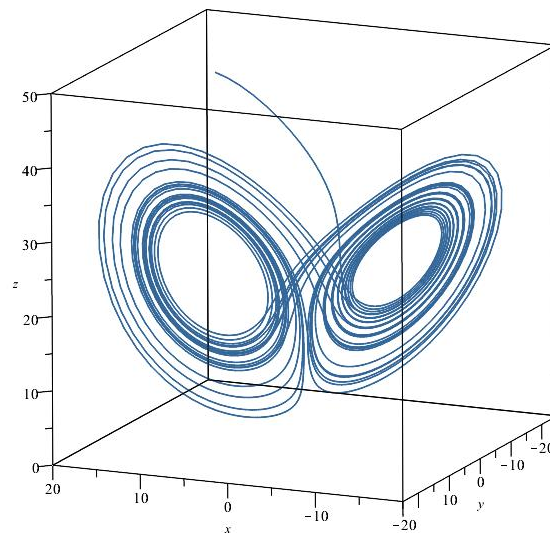


Fig.1: $\sigma = 10, b = 8/3, r = 24.7$.

Strange Attractor

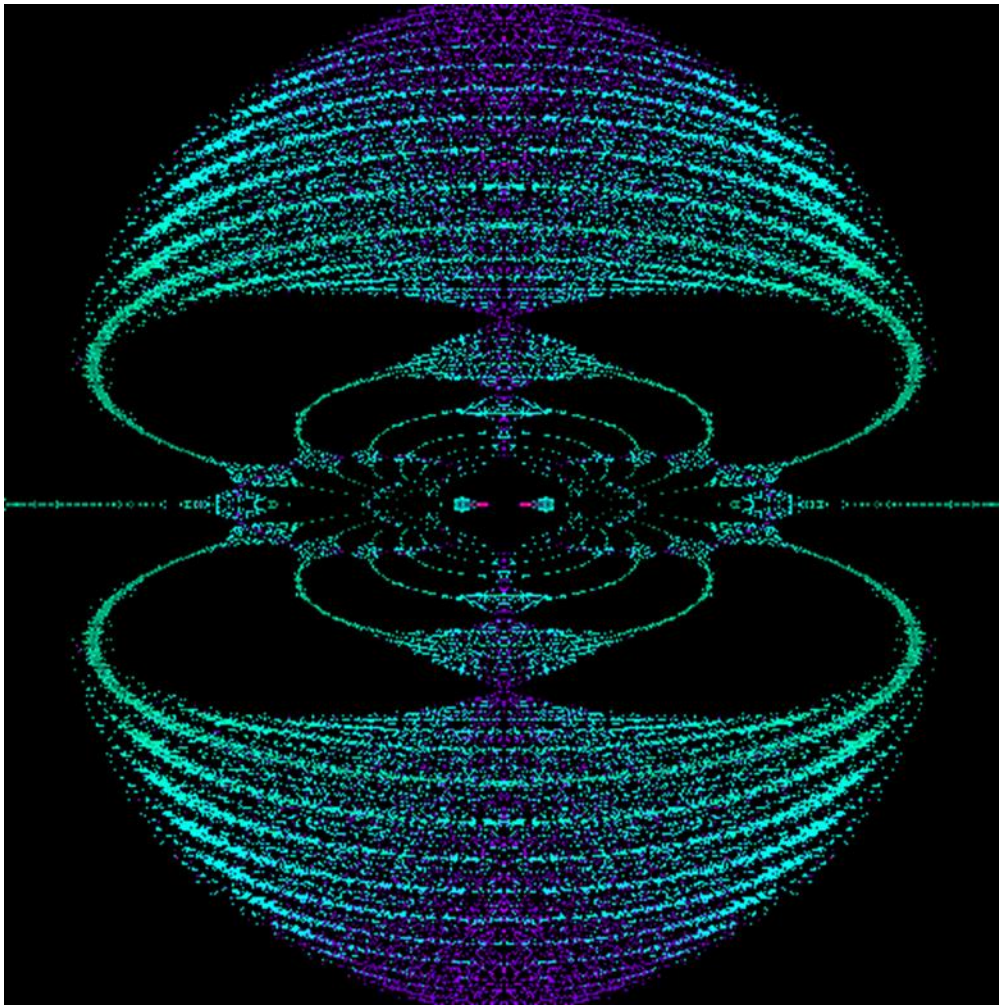


Fig. 2

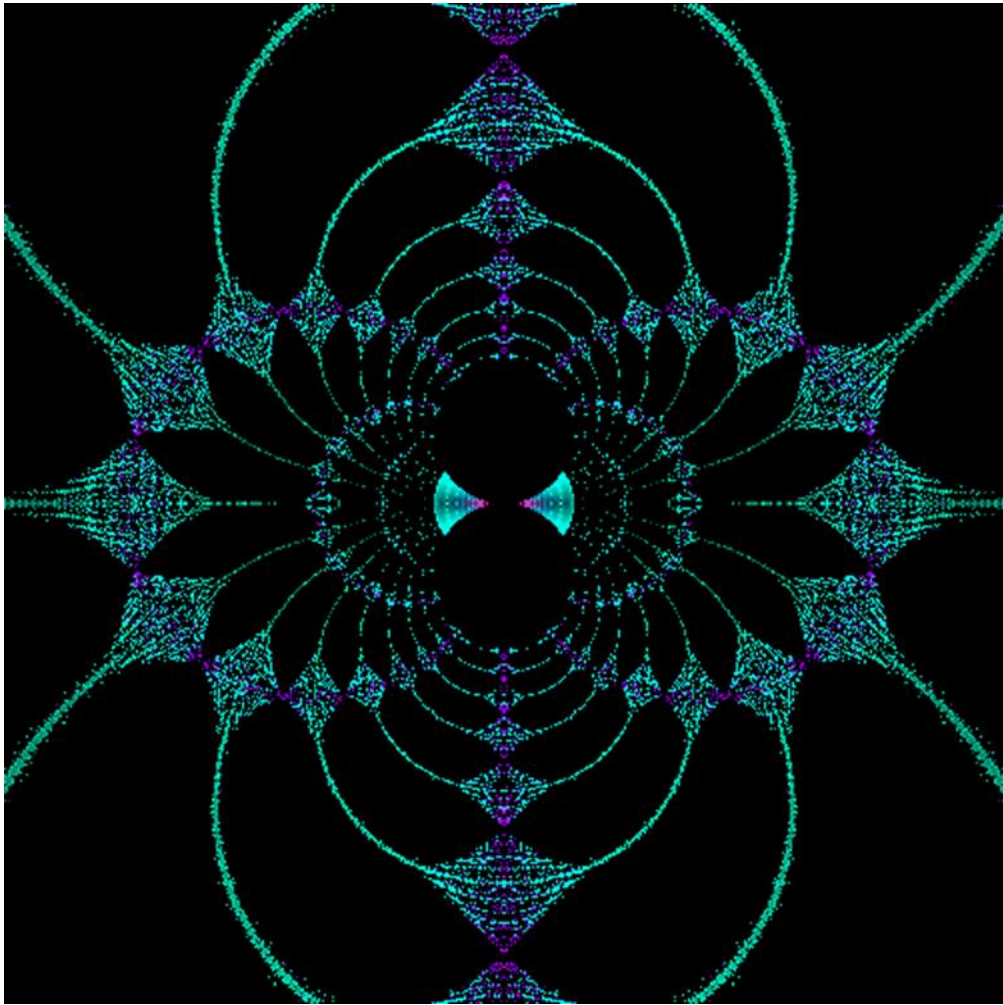


Fig. 3.

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