

Exploring Chaos"

PG 137 & 138

a particle can settle into three possibilities.

• We call this an attractor.

1. A final resting position

2. A periodic cycle. (ellipse)

3. Move wildly & erratically, but still being bounded in some region of space.

* Attractors are usually fractals.

* Chaotic motion can follow simple deterministic laws.

* Iterate ~~Polynomials~~ Polynomials

example: $w = z^2 + 1$

where z is a variable. Once calculated, " w " would become the new value of z . Then, repeat operation.