



1 refs

$$Y_{i+1} = f(Y_i)$$

TherlinearMap

$$i = 0: Y_0 \Rightarrow Y_1 = f(Y_0)$$

$$i=1: Y_1 \rightarrow Y_2 = f(Y_1) = f(f(Y_0)) = f^2(Y_0)$$

$$i=2: Y_2 \Rightarrow Y_3 = f(Y_2) = \dots = f^3(Y_0)$$

$$i=n: Y_n \Rightarrow Y_{n+1} = f(Y_n) = \dots = f^n(Y_0)$$



3

2

The Linear Map

$$Y_{i+1} = f(Y_i)$$

$$i = 0: \quad Y_0 \rightarrow Y_1 = f(Y_0)$$

$$i = 1: \quad Y_1 \rightarrow Y_2 = f(Y_1) = f(f(Y_0)) = f^2(Y_0)$$

$$i = 2: \quad Y_2 \rightarrow Y_3 = f(Y_2) = \dots = f^3(Y_0)$$

$$\vdots$$

$$\overset{1\text{refs}}{i = n}: \quad Y_n \rightarrow Y_{n+1} = f(Y_n) = \dots = f^n(Y_0)$$

Linear Map: Iteration with a parameter

$$Y_{i+1} = a \cdot Y_i$$

