Radboud University Nijmegen

Behavioural Science Institute

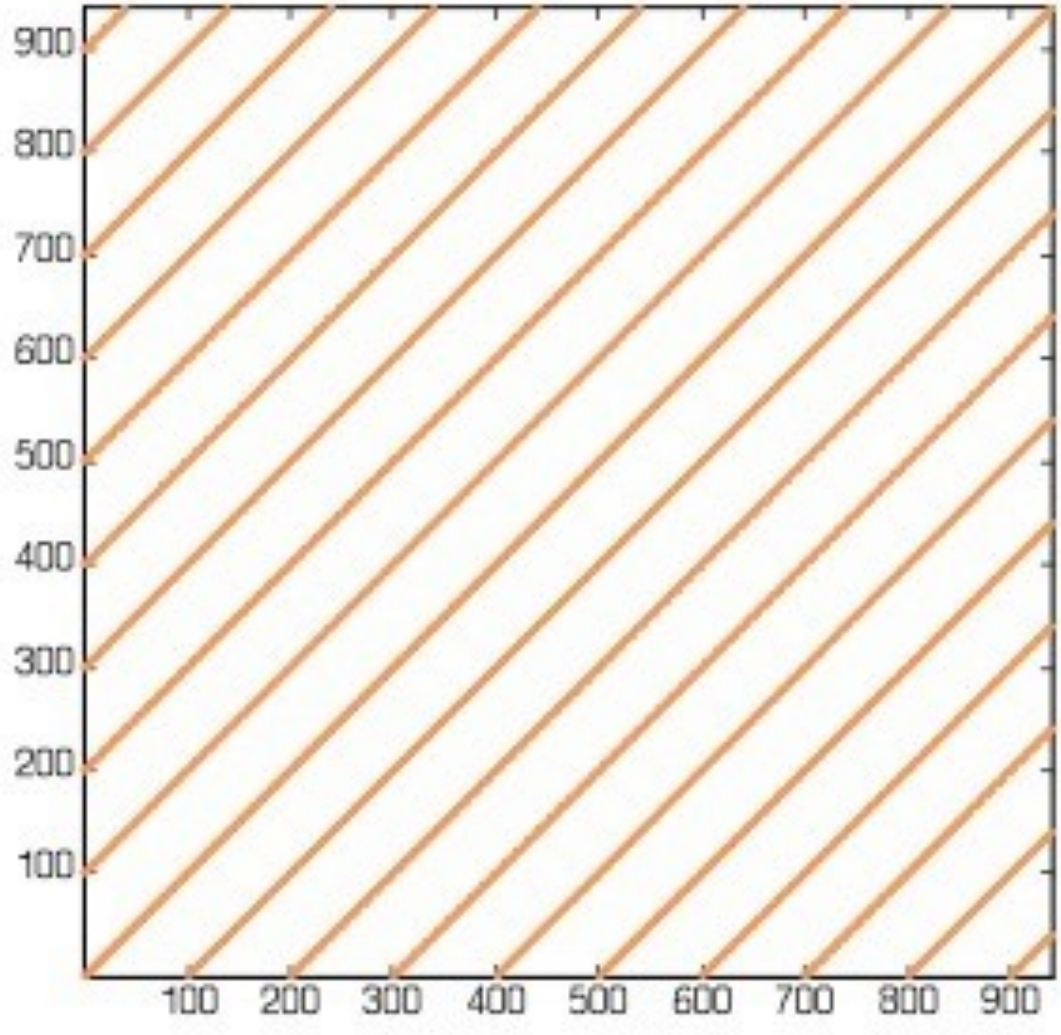
$$\frac{\text{Number of recurrent points forming diagonal line}}{\text{Total recurrent points}}$$

$\times 100$

%DETERMINISM

Indexes how “patterned” the data are.

Does the system return to the same region of phase space for a longer period of time?


900
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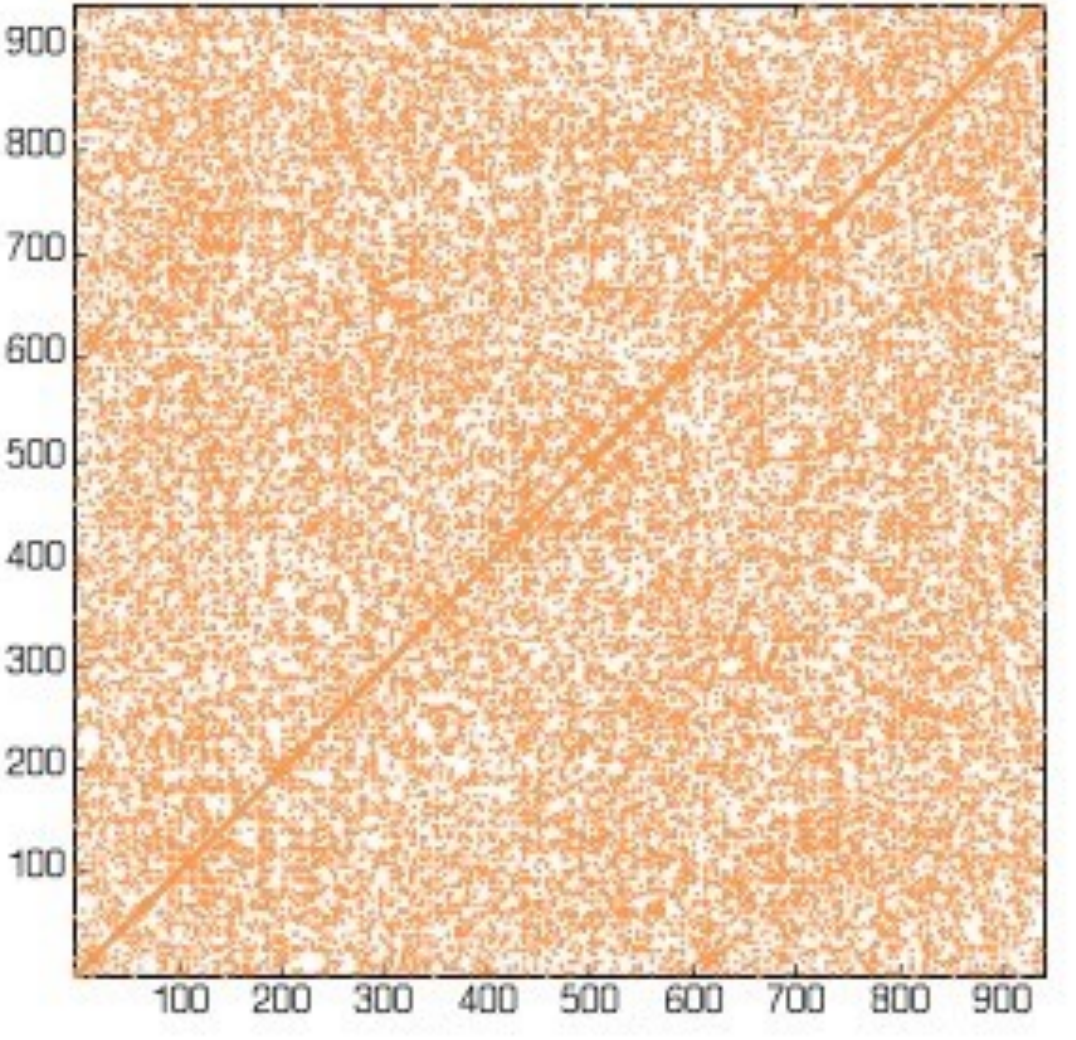
900
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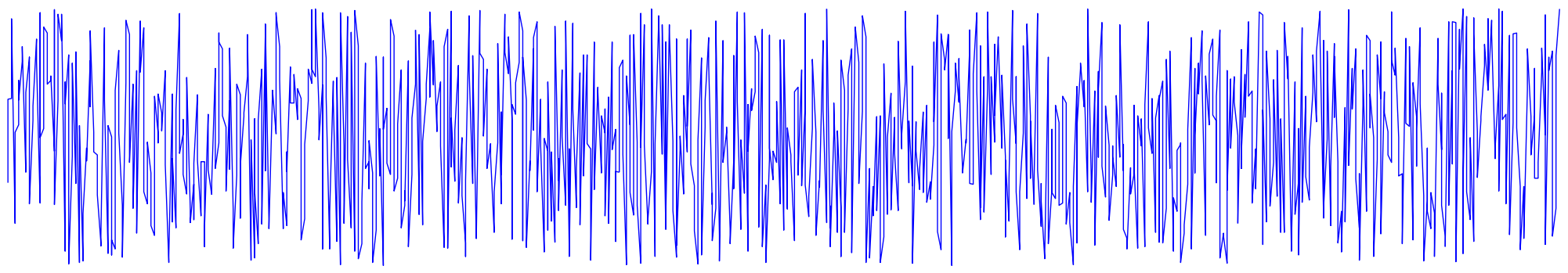
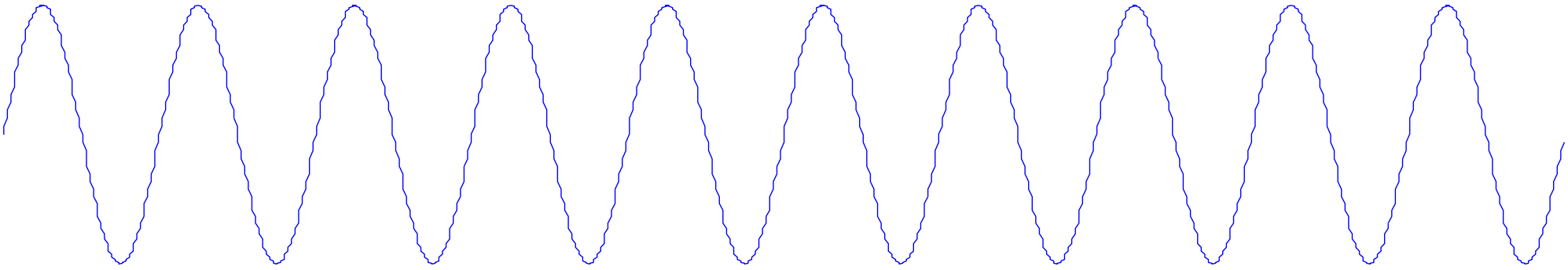
%REC = 2.9

%DET = 99.8

%REC = 2.9

%DET = 5.4





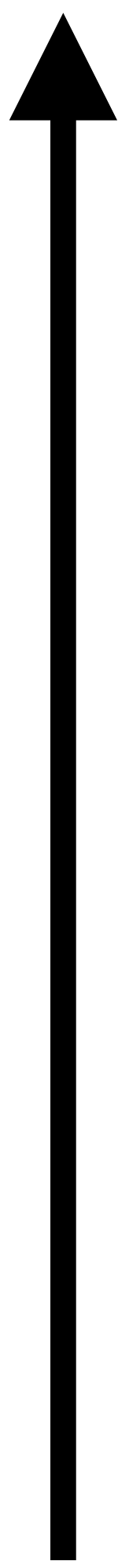

%DET =

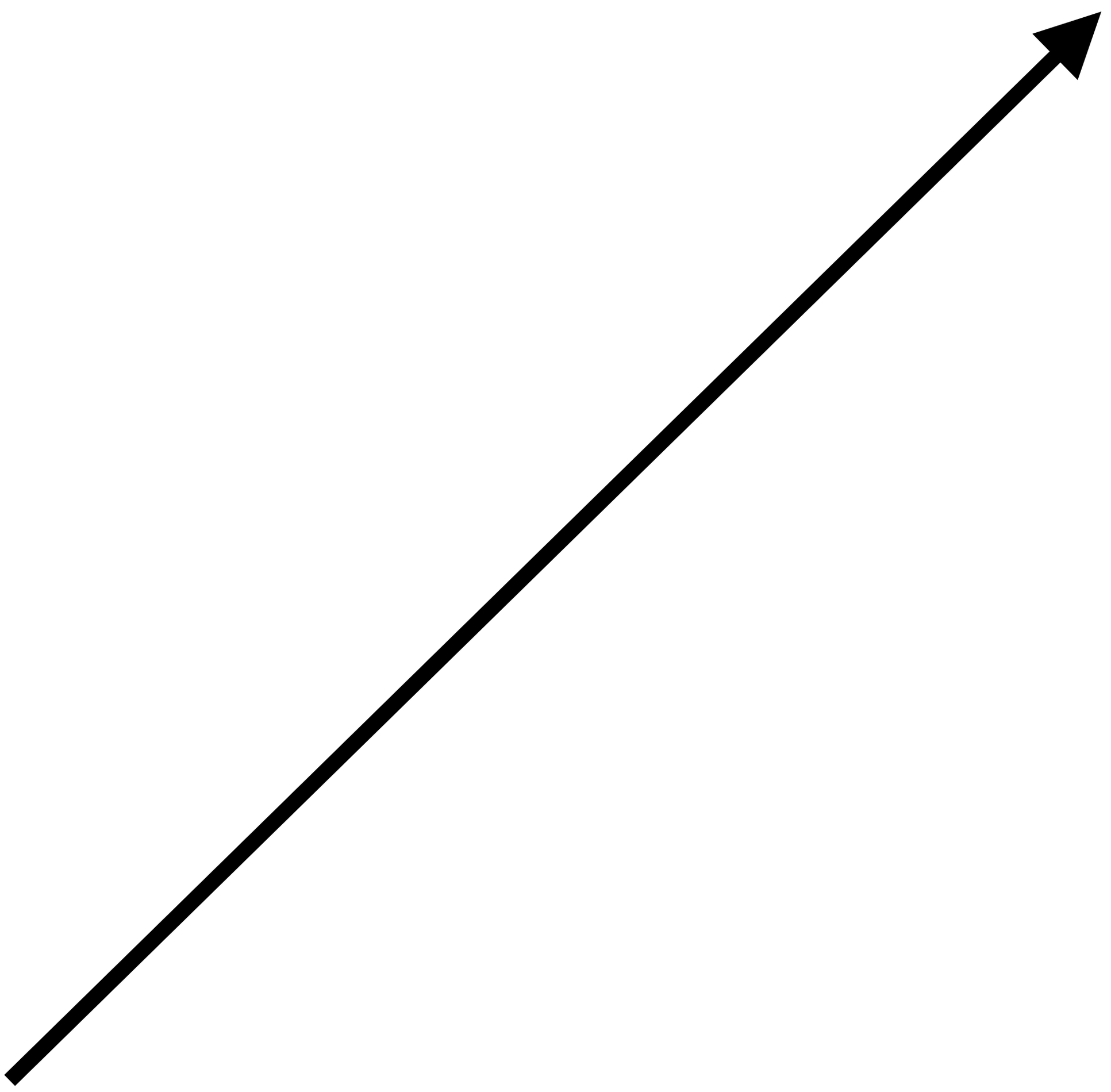
White Noise


Sine

Adapted from Shockley 2007

58





Adapted from Shockley 2007

%DETERMINISM

Indexes how “patterned” the data are.

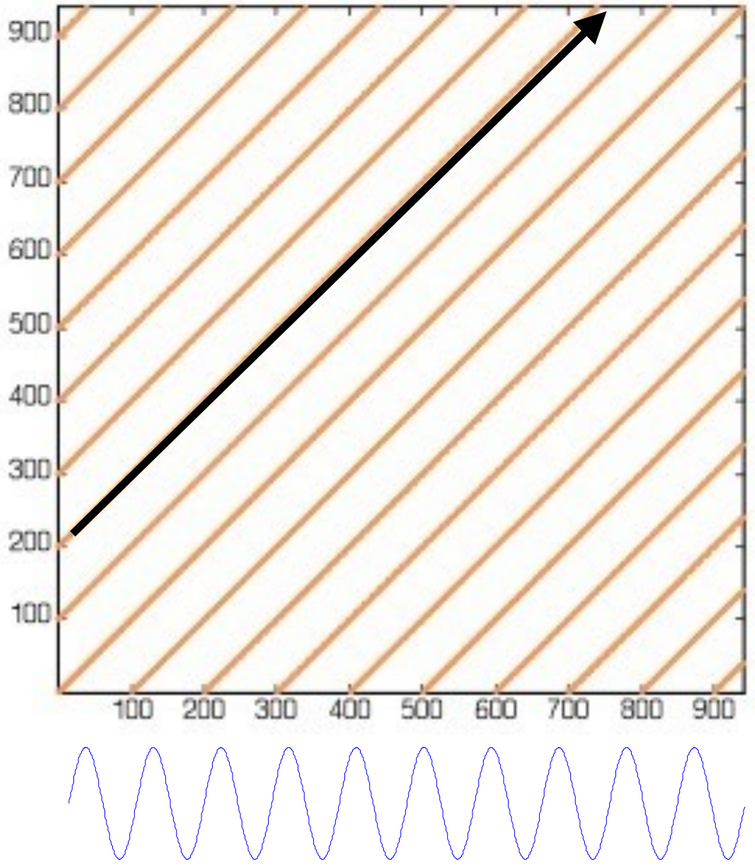
Does the system return to the same region of phase space for a longer period of time?

$$\%DET = \frac{\text{Number of recurrent points forming diagonal line}}{\text{Total recurrent points}} \times 100$$

Sine

%REC = 2.9

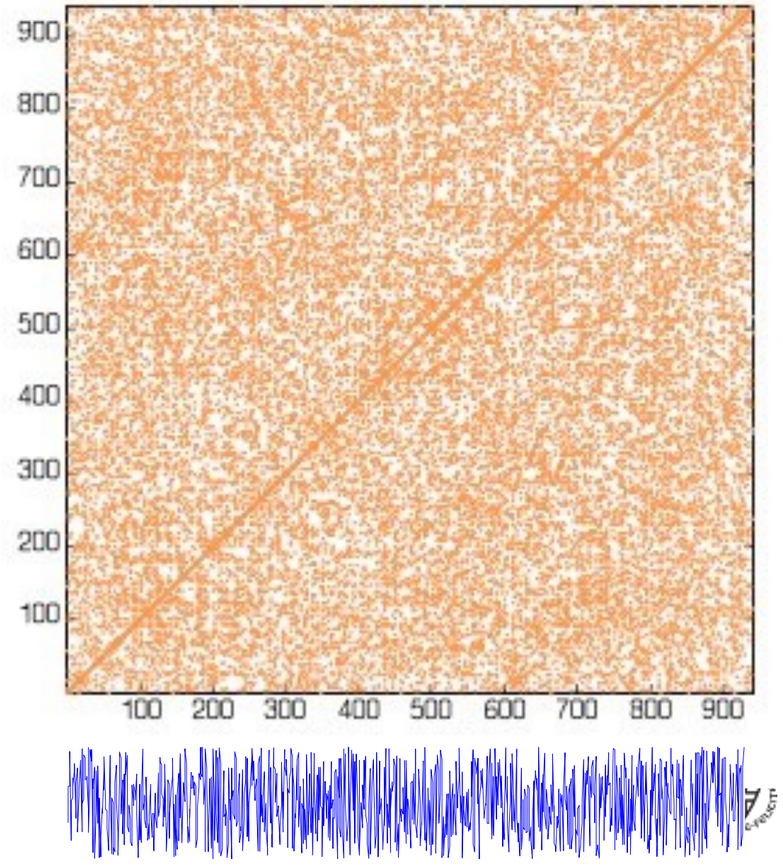
%DET = 99.8



White Noise

%REC = 2.9

%DET = 5.4



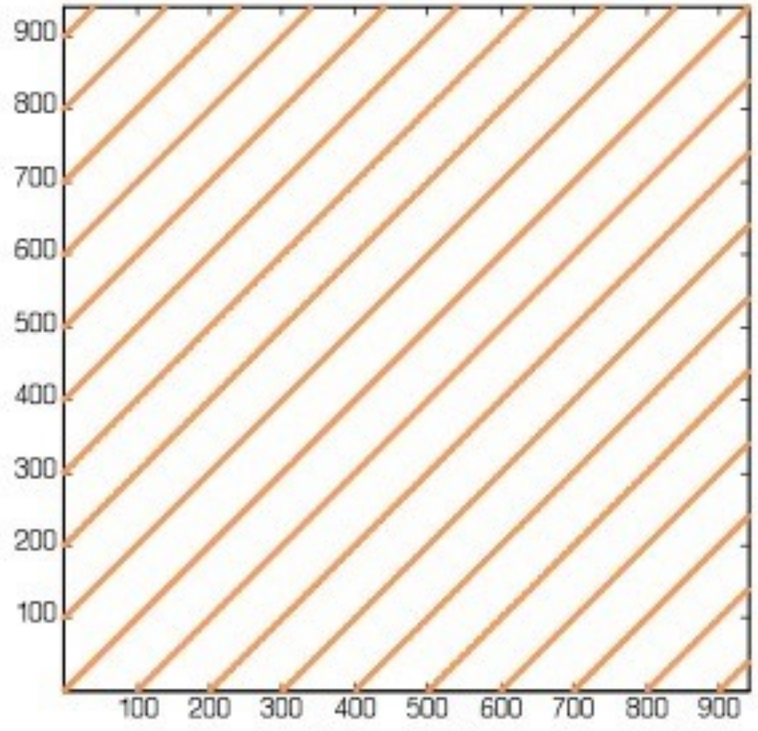
MAXLINE

How long the system can maintain a recurring pattern ~ “Stability”

MAXLINE = The longest sequence of recurring points

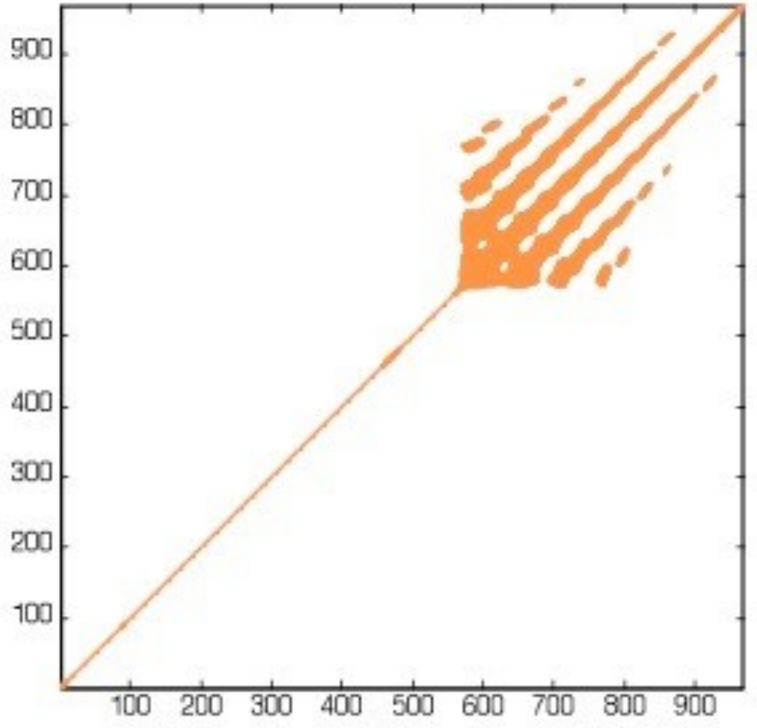
Sine

%REC = 2.9
MAXLINE = 938



Lorenz

%REC = 2.9
MAXLINE = 410



1/maxline = Divergence (Thought to be an estimate of largest Lyapunov exponent)