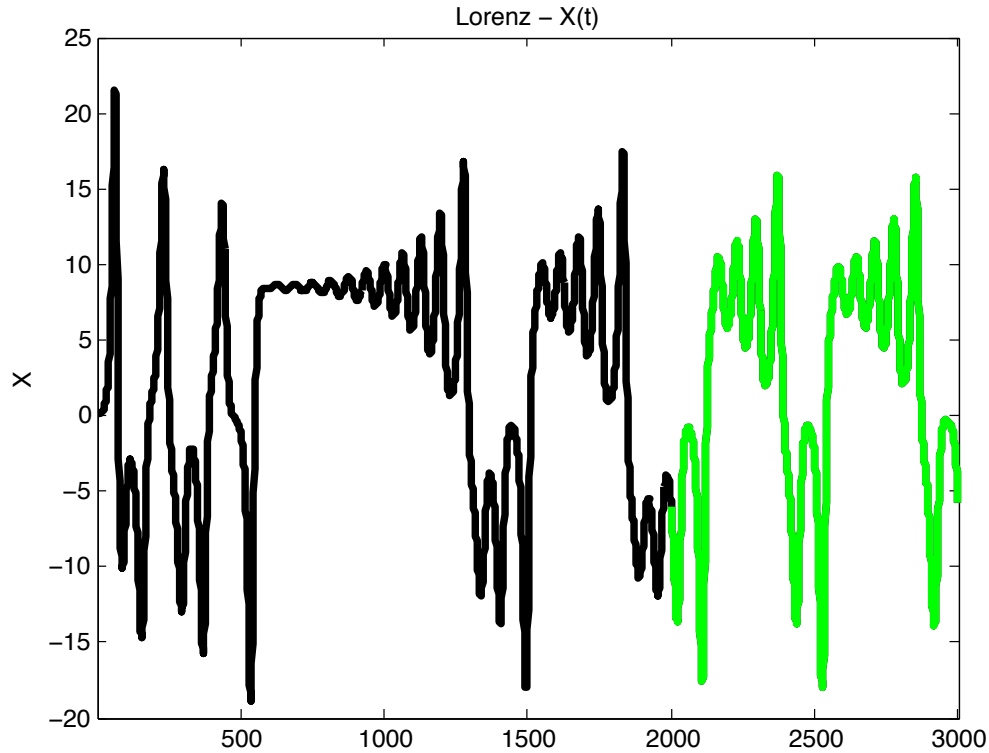
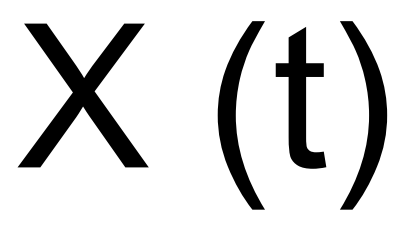
Radboud University Nijmegen

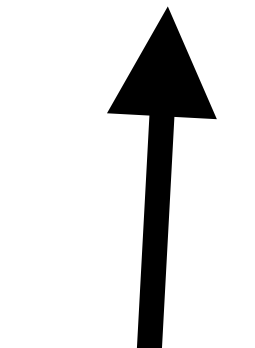
Behavioural Science Institute


Lorenz – X(t)
X
25
20
15
10
5
0
−5
−10
−15
−20
500
1000
1500
2000
2500
3000


X (t)

Creating surrogate dimensions using the method of delays

27

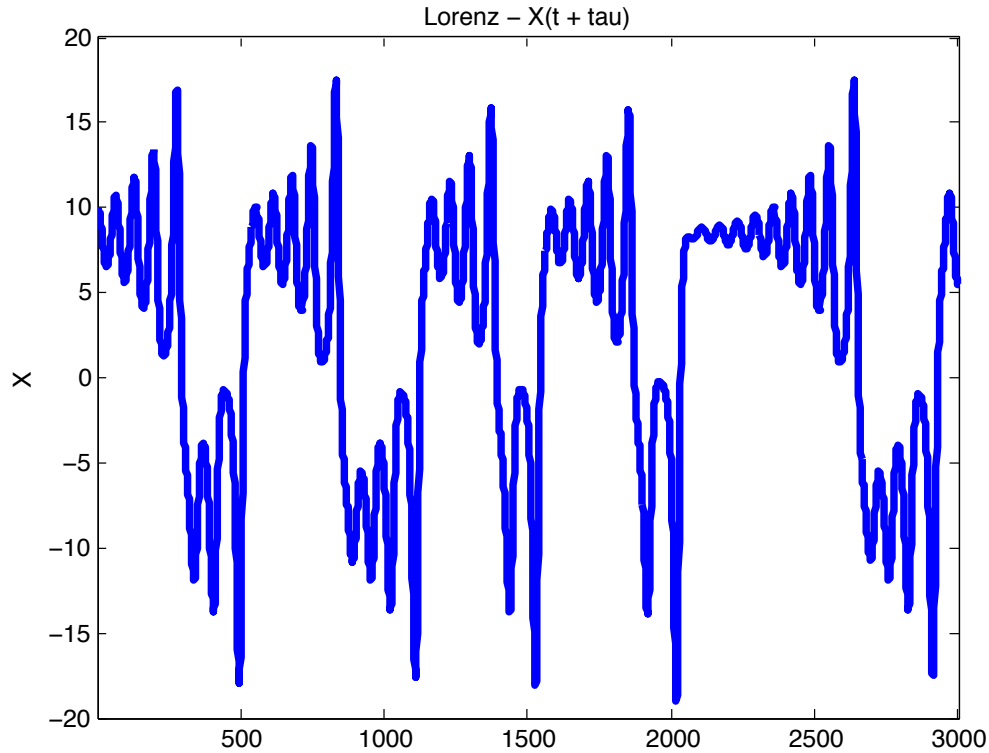

2*T

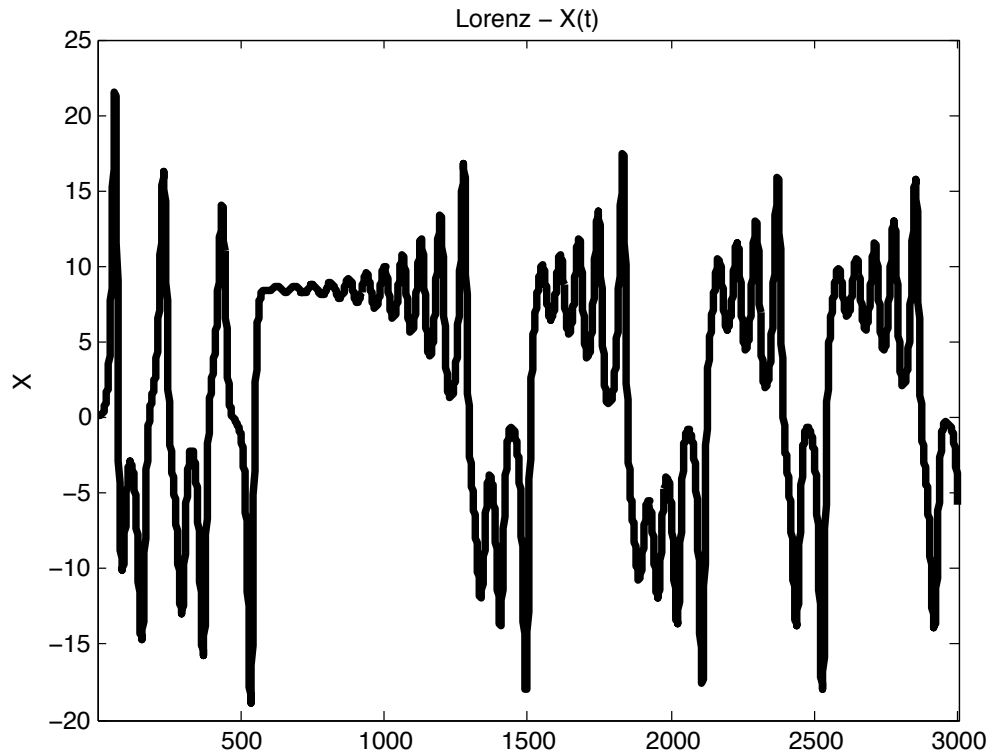
Let’s take our embedding delay or lag to be:

$$T = 1000$$

$$X(t+\tau)$$

Data point 1 + T [X(t) = 1001] becomes data point 1 for this dimension

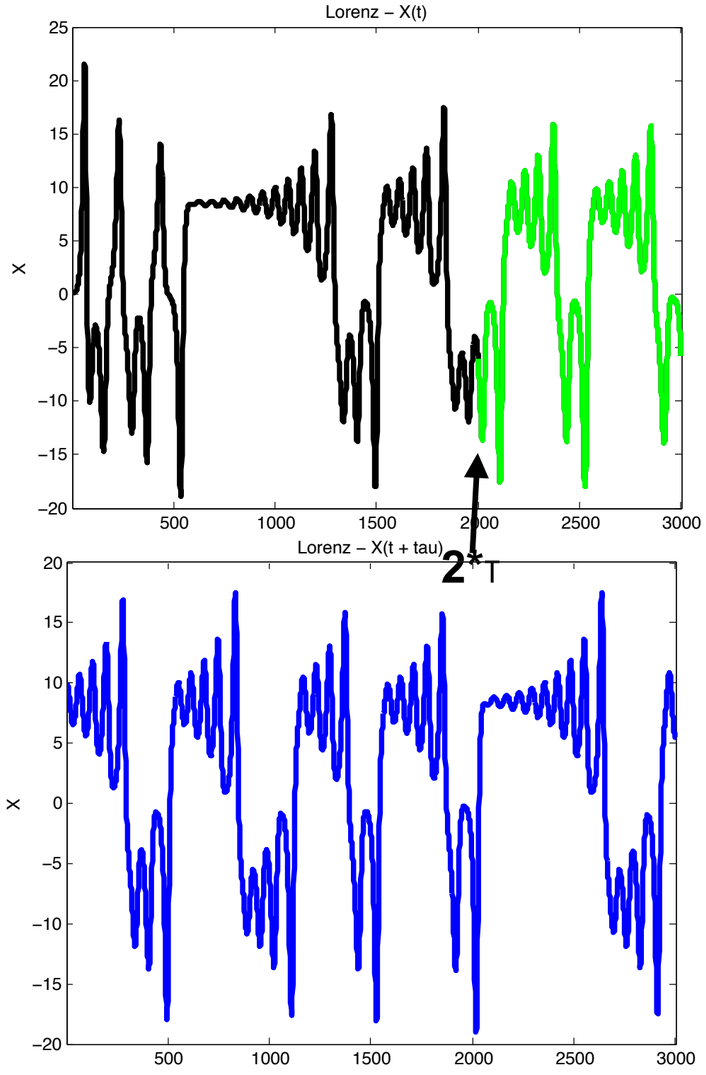

Lorenz – X(t + tau)
X
20
15
10
5
0
−5
−10
−15
−20
500
1000
1500
2000
2500
3000


Lorenz – X(t)
X
25
20
15
10
5
0
−5
−10
−15
−20
500
1000
1500
2000
2500
3000

Creating surrogate dimensions using the method of delays

X (t)

X (t + T)



Let's take our embedding delay or lag to be:

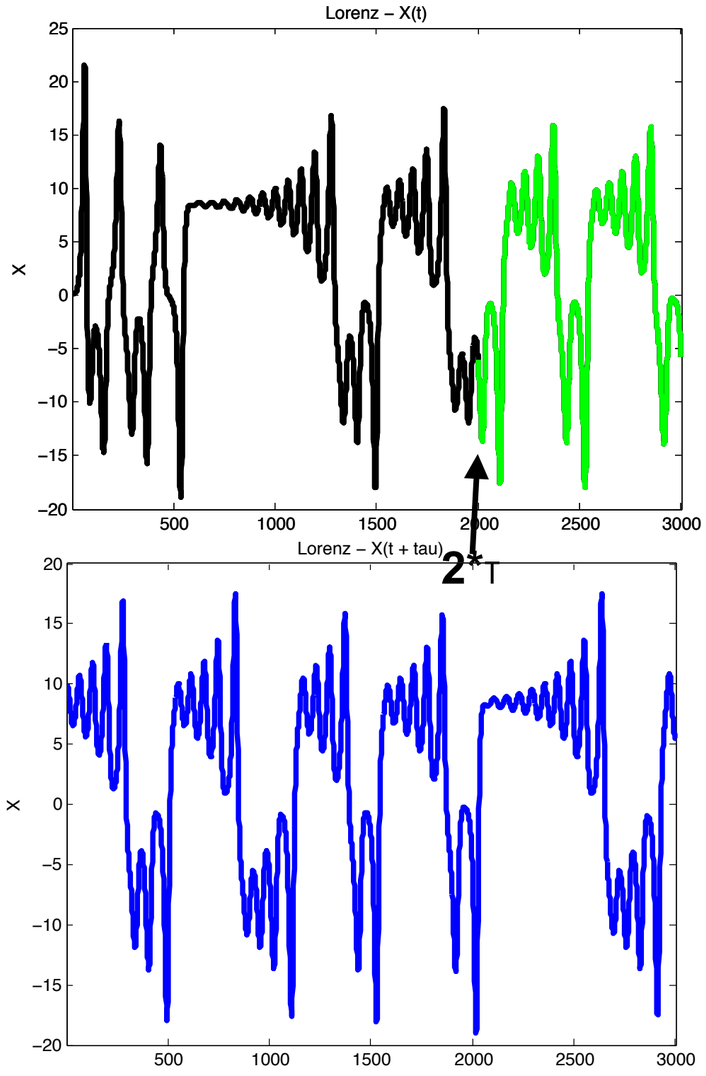
T = 1000

Data point 1 + T [X(t) = 1001] becomes data point 1 for this dimension

Creating surrogate dimensions using the method of delays

X (t)

X (t + T)



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T = 1000

Data point 1 + T [X(t) = 1001] becomes data point 1 for this dimension