

The Topology of Chaos

Alice in Stretch and Squeezeland

Erratum for the first Edition (February 12, 2004)

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Chapter 2, page 32 (thanks to Michel Nizette) The change of coordinate that transforms the logistic map into the tent map is $x = 2\sin(\pi x'/4)$, not $x = 2\sin(\pi x')/4$.

Chapter 2, page 85 (thanks to Michel Nizette) The definitions of the stable and unstable manifolds should read (where did that lowercase x come from?):

$$X \in W_s(X^*) \Leftrightarrow \lim_{n \rightarrow +\infty} \|f^n(X) - X^*\| = 0, \quad (2.115a)$$

$$X \in W_u(X^*) \Leftrightarrow \lim_{n \rightarrow +\infty} \|f^{-n}(X) - X^*\| = 0 \quad (2.115b)$$

Chapter 2, page 91 The sum in Eq. (2.118) should be over n , not i .

$$\rho = \lim_{N \rightarrow \infty} \frac{1}{N} \sum_{n=0}^{N-1} \Delta\theta_n \quad \text{with } \Delta\theta_n = [w + K/2\pi \sin(2\pi\theta_n)] \quad (2.118)$$

Chapter 6, page 247 The picture in Figure 6.12 actually belongs to Fig 6.13, which shows an earlier version. The correct Figure 6.12 is:

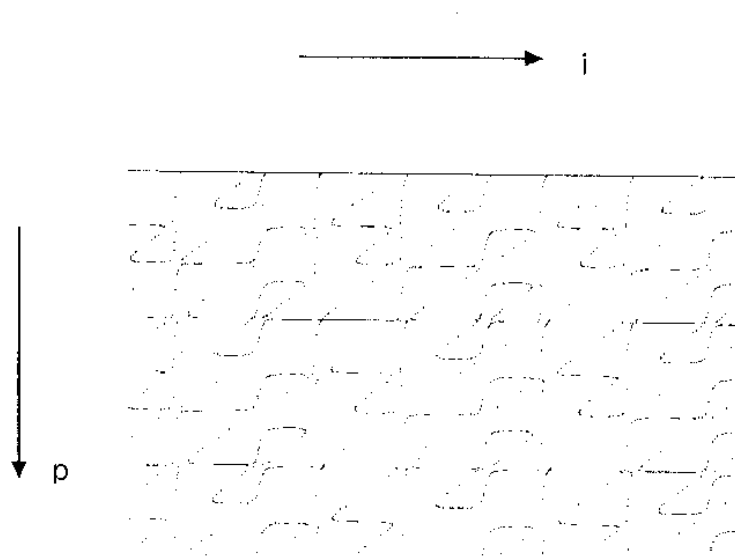


Fig. 6.12 Close returns plot $\Theta(\epsilon - |x(i) - x(i+p)|)$ of scalar time series from the Belousov-Zhabotinskii reaction. Horizontal line segments indicate regions of the data set that are near unstable periodic orbits.