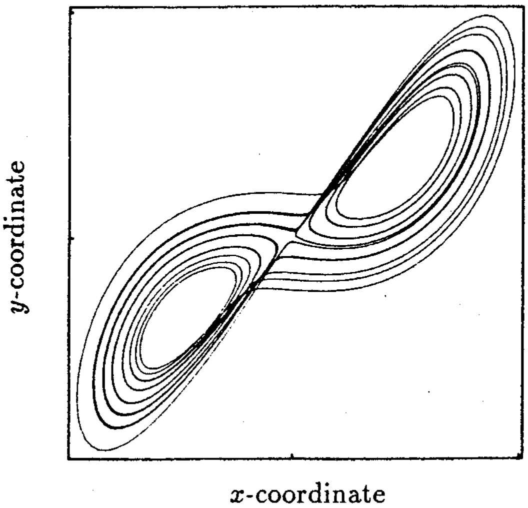

Figure 1.a. The attractor of the Lorenz system ($\sigma = 10$, $\beta = \frac{8}{3}$, $\rho = 28$), projected onto the xy-plane.

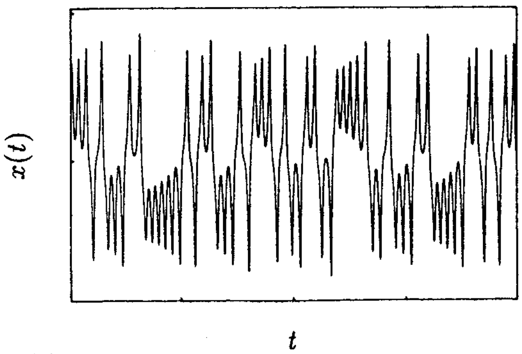

Figure 1.b. $x(t)$, the one-dimensional data stream obtained from the integration of eq. (12). From this data one gets the time series $x(i\tau)$, $i = 0, 1, 2, \ldots$.

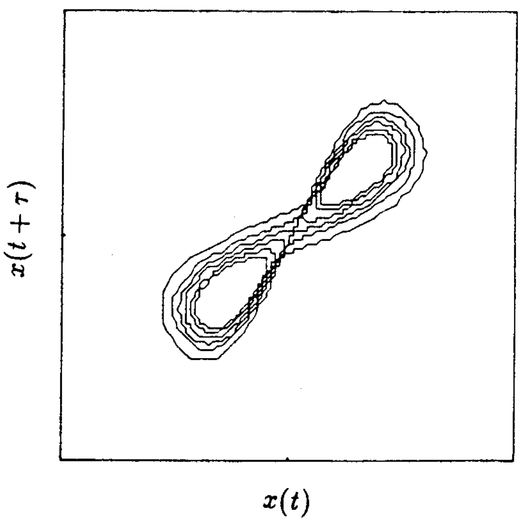

Figure 1.c. A phase portrait of the Lorenz system, constructed by the method of delays.

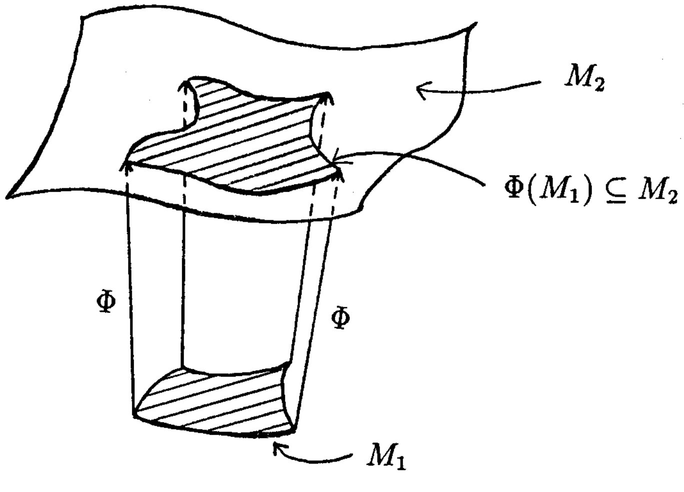

Figure 2. Example of a manifold M_1 which is embedded in the manifold M_2 via the diffeomorphism $\Phi : M_1 \rightarrow M_2$.

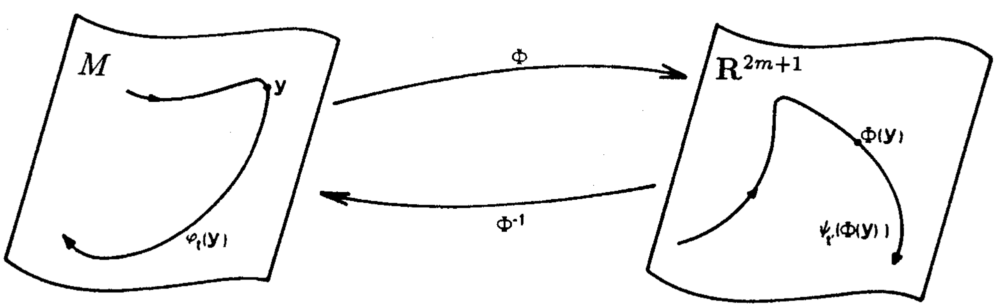

Figure 3. Two dynamical systems with the same qualitative dynamics, connected via the diffeomorphism $\Phi : M \to \mathbf{R}^{2m+1}$.

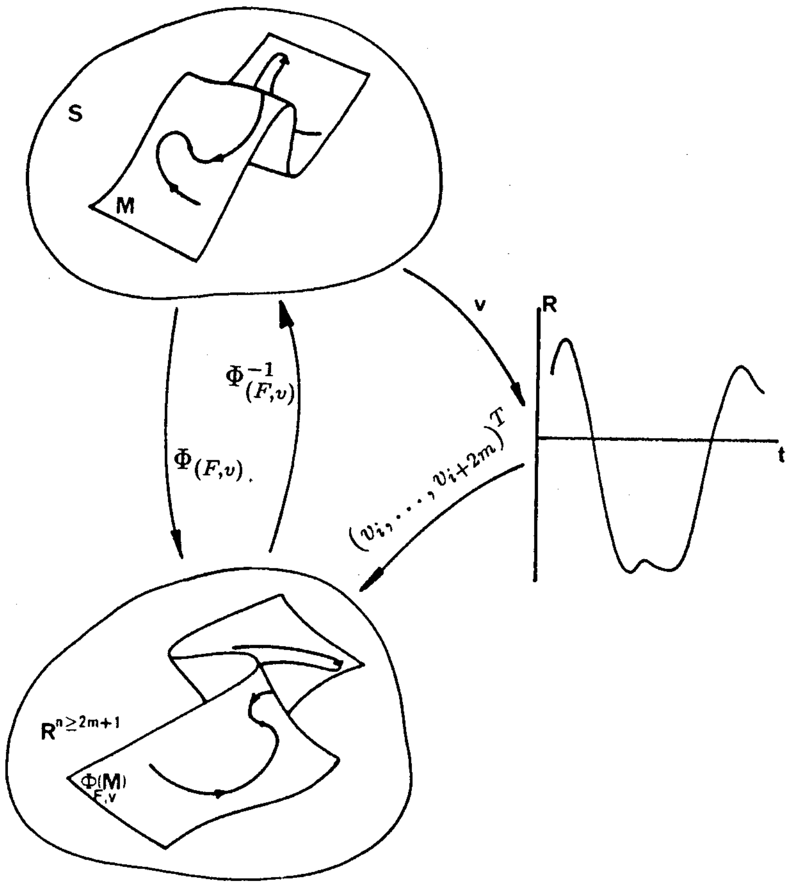

Figure 4. Embedding process after Packard et al. and Takens.

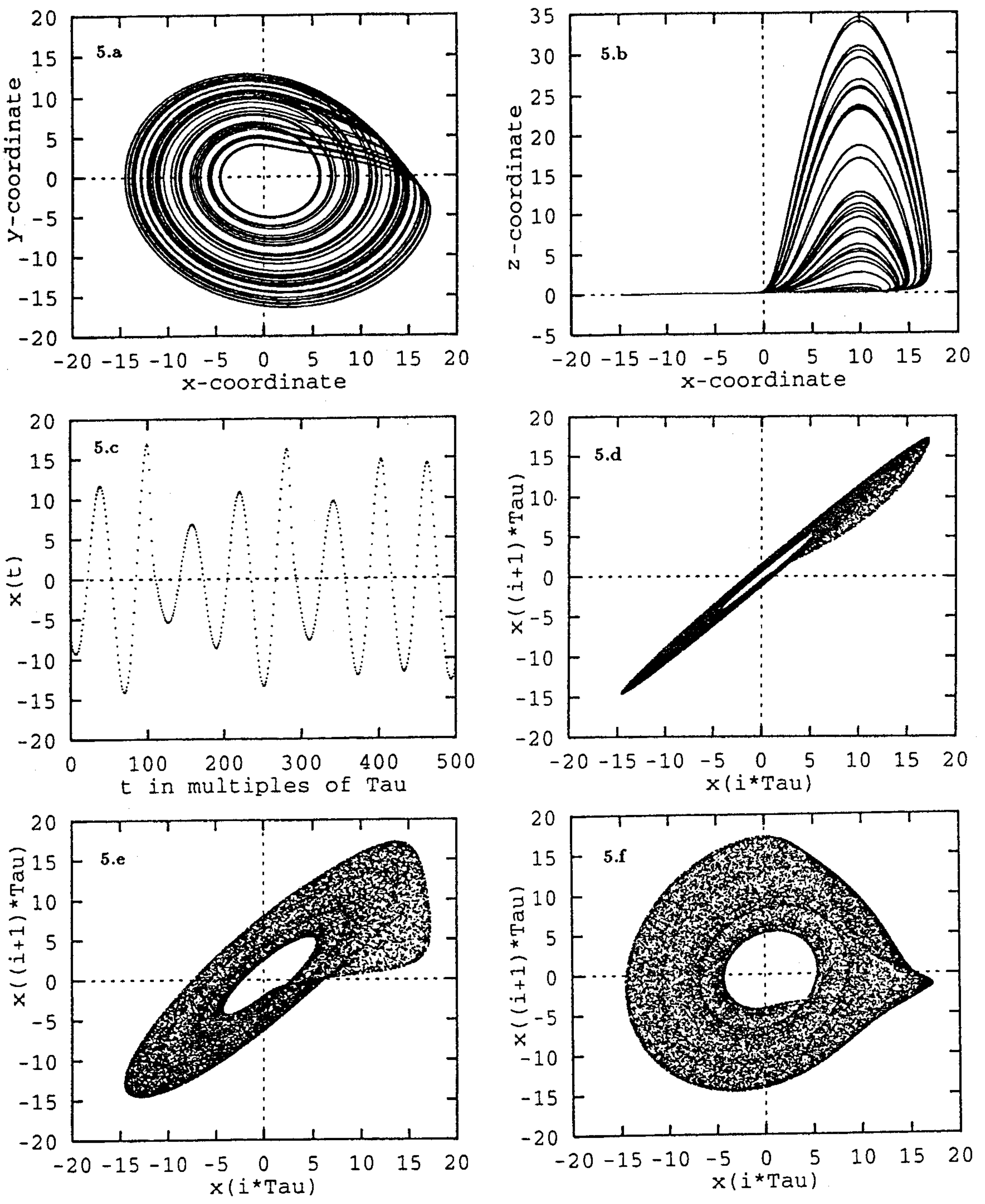

Figure 5. (a,b) Projections of the Rössler attractor onto the xy- and xz-planes, respectively. (c) Time series $x(i\Delta)$, $i = 0, 1, 2, \ldots$, obtained by numerical integration of the Rössler system. (d,e,f) Results of the method of delays, with $\tau = 10\Delta$, 50Δ, 140Δ, respectively.

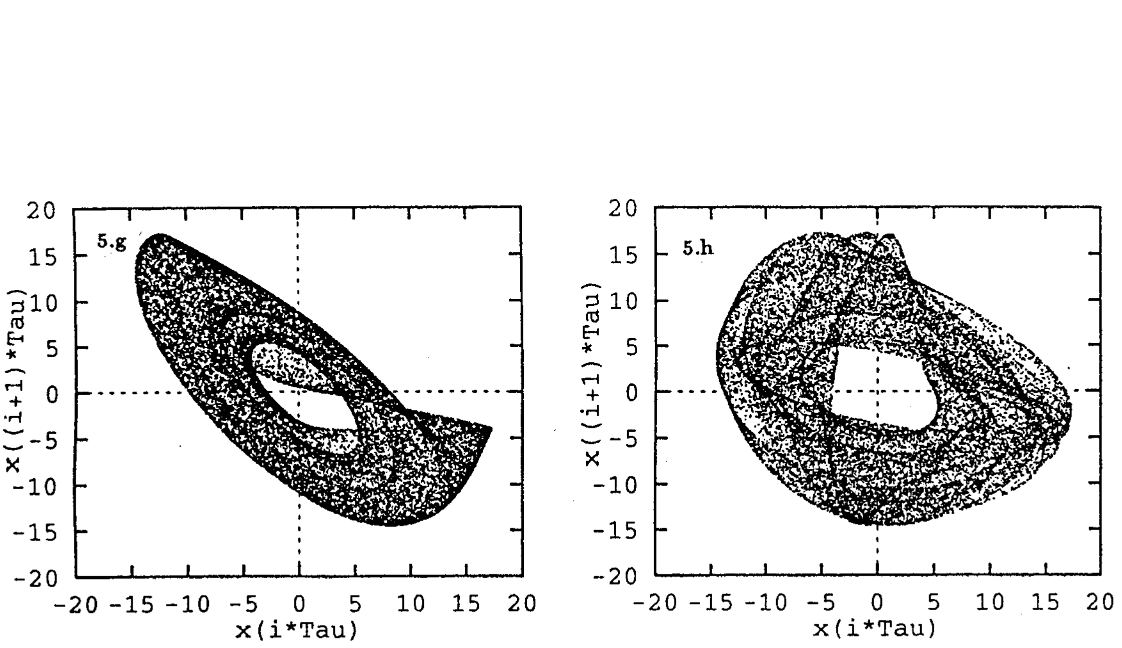

Figure 5. (g,h) Results of the method of delays, with $\tau = 235\Delta$, 2000Δ, respectively.

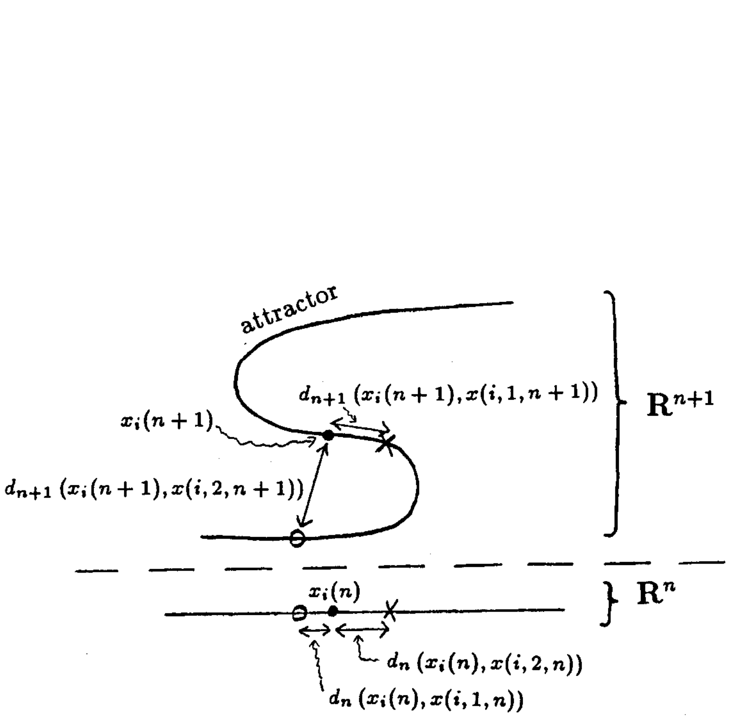

Figure 6. Illustration of an embedding dimension n which is too small. The reconstructed picture of the attractor is shown schematically in n- and $(n+1)$-dimensional embedding space.

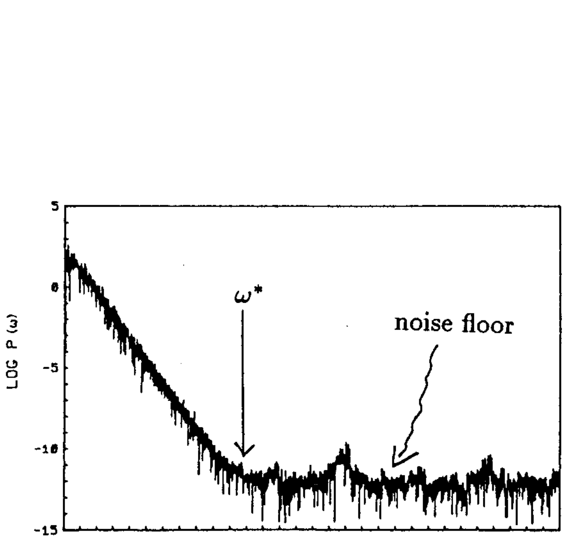

Figure 7. Example for a band-limited power spectrum which allows to determine the band-limit frequency ω^*.