

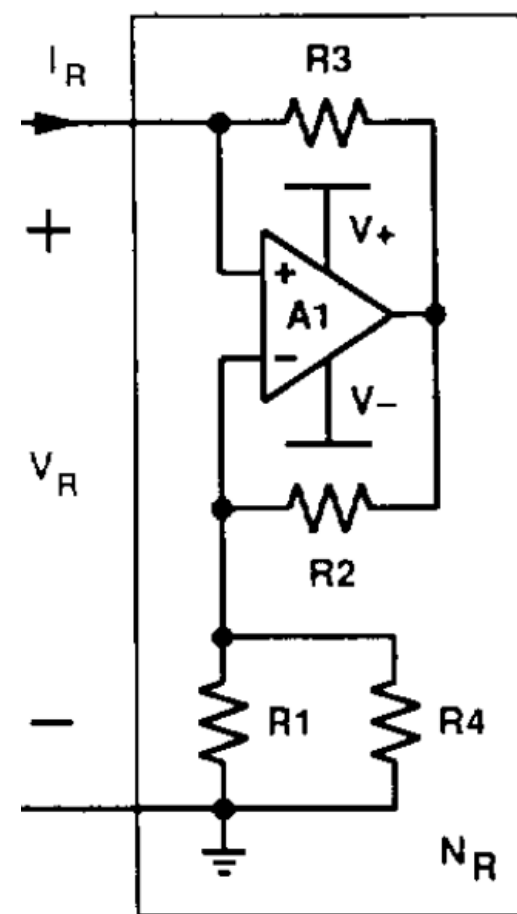
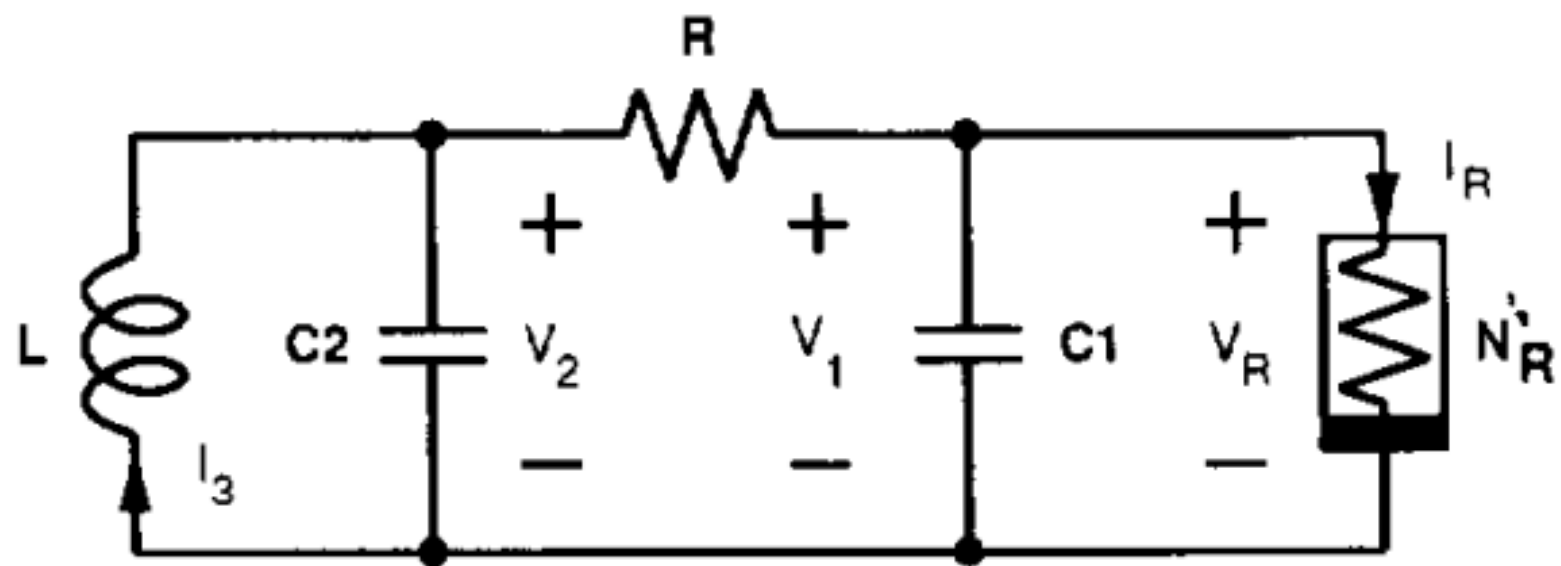
Dynamics of Chua's Circuit

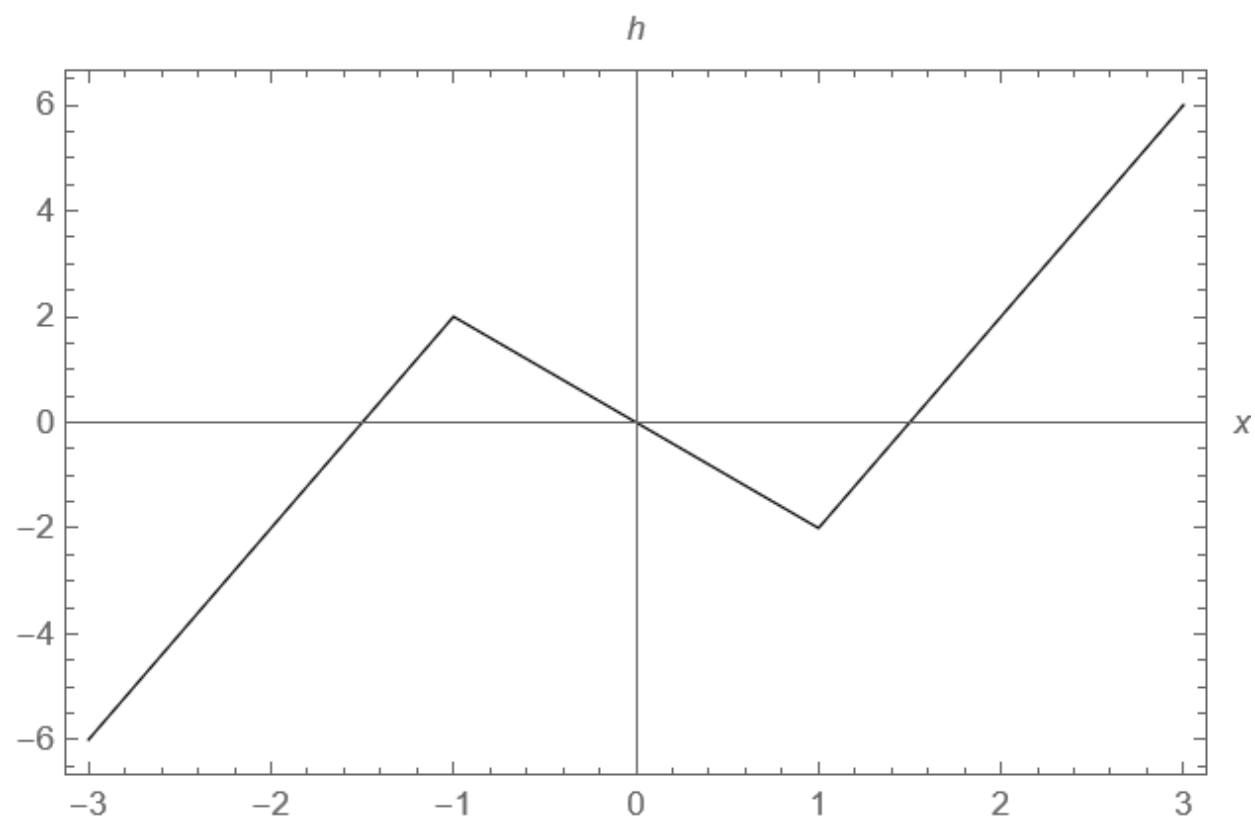
Amir Shapour Mohammadi

MAE541, Spring 2022

May 4th, 2022

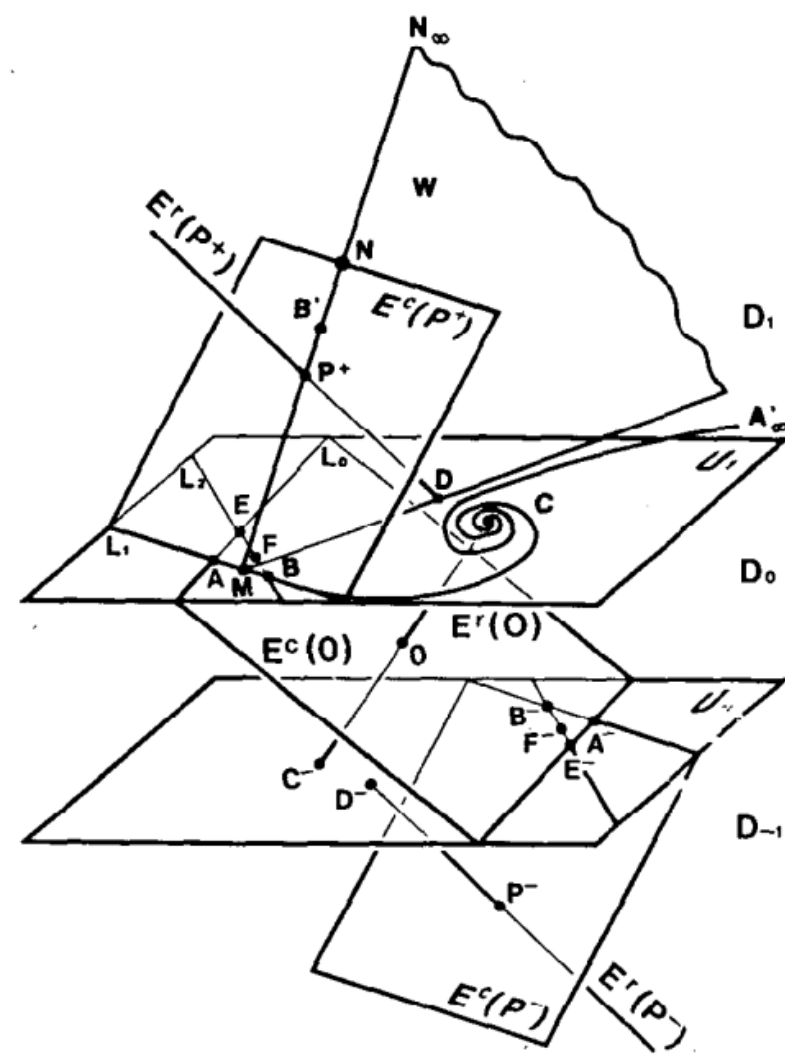
- (C.1) one nonlinear element,
- (C.2) one locally active resistor,
- (C.3) three energy-storage elements (e.g. capacitors and inductors).

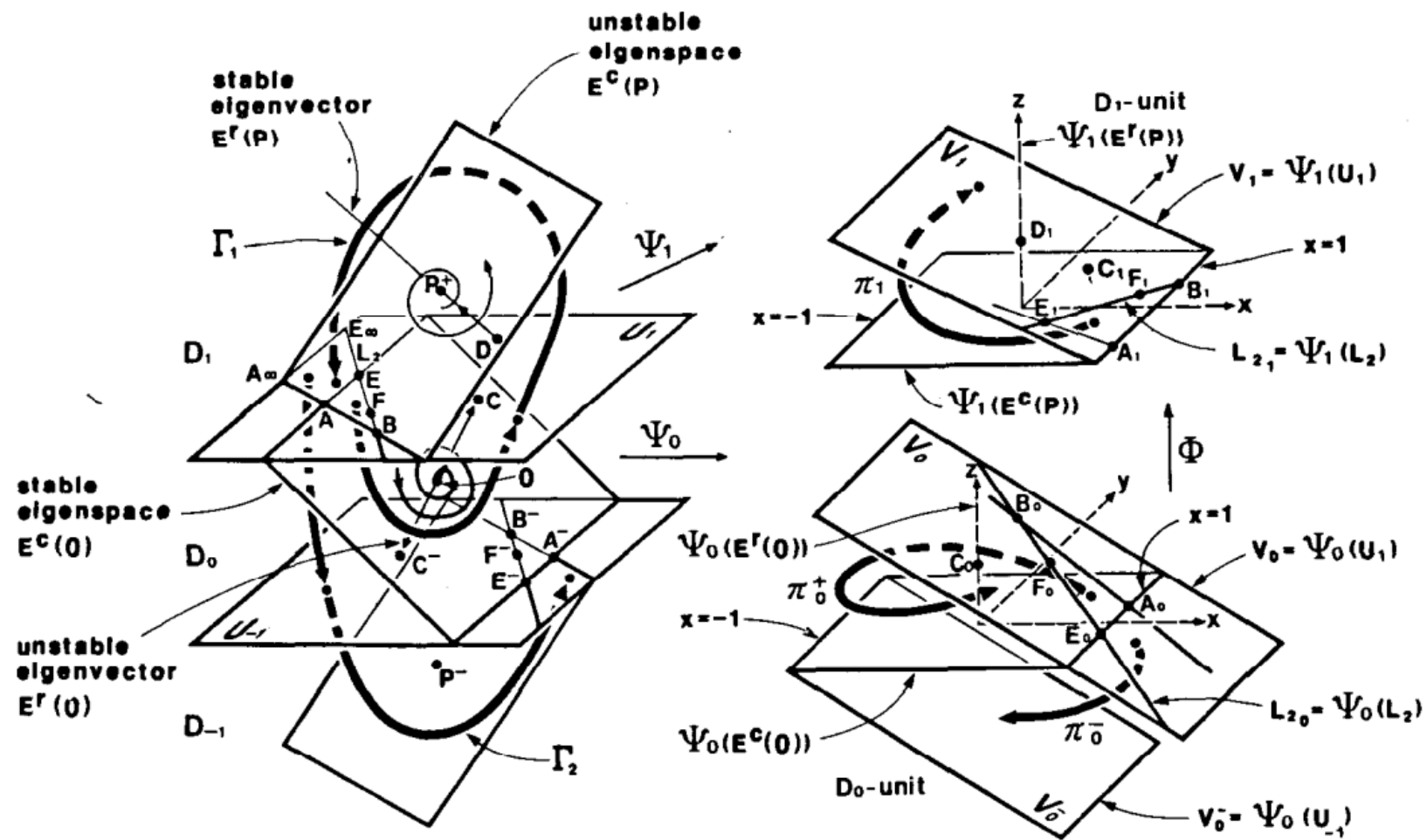


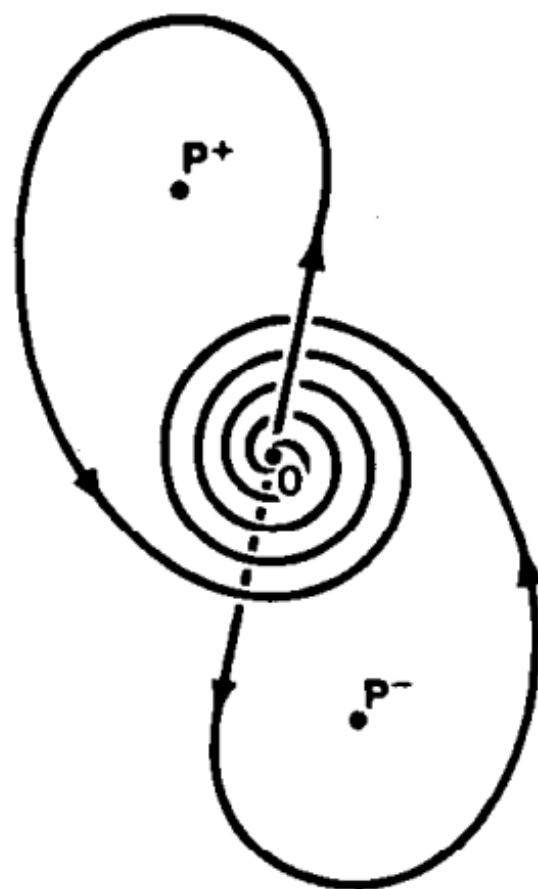
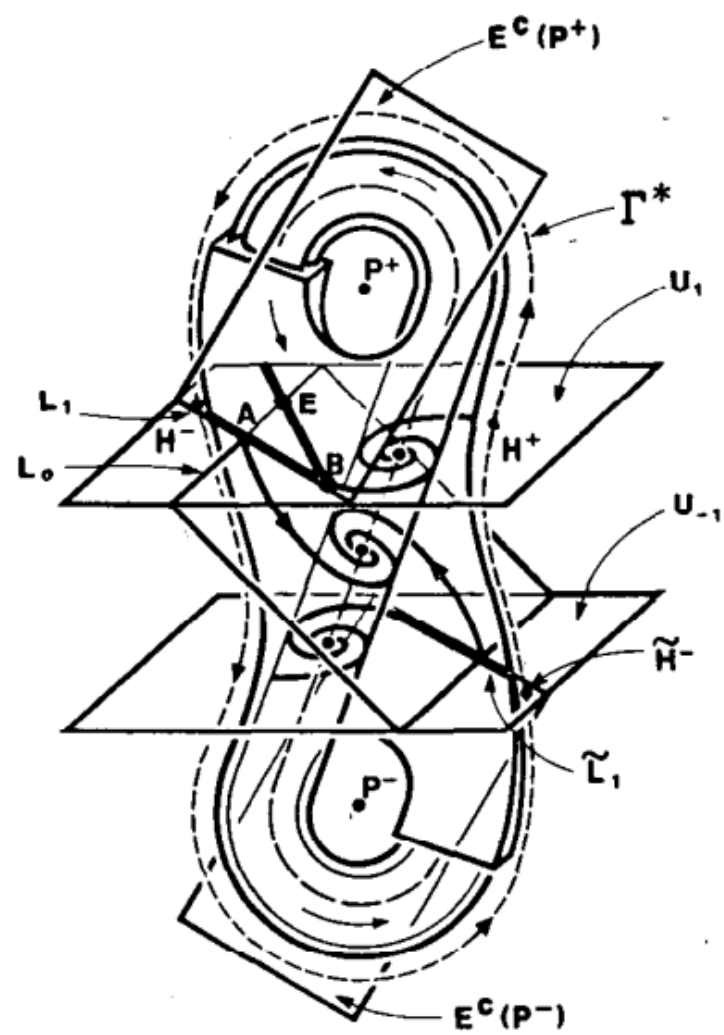


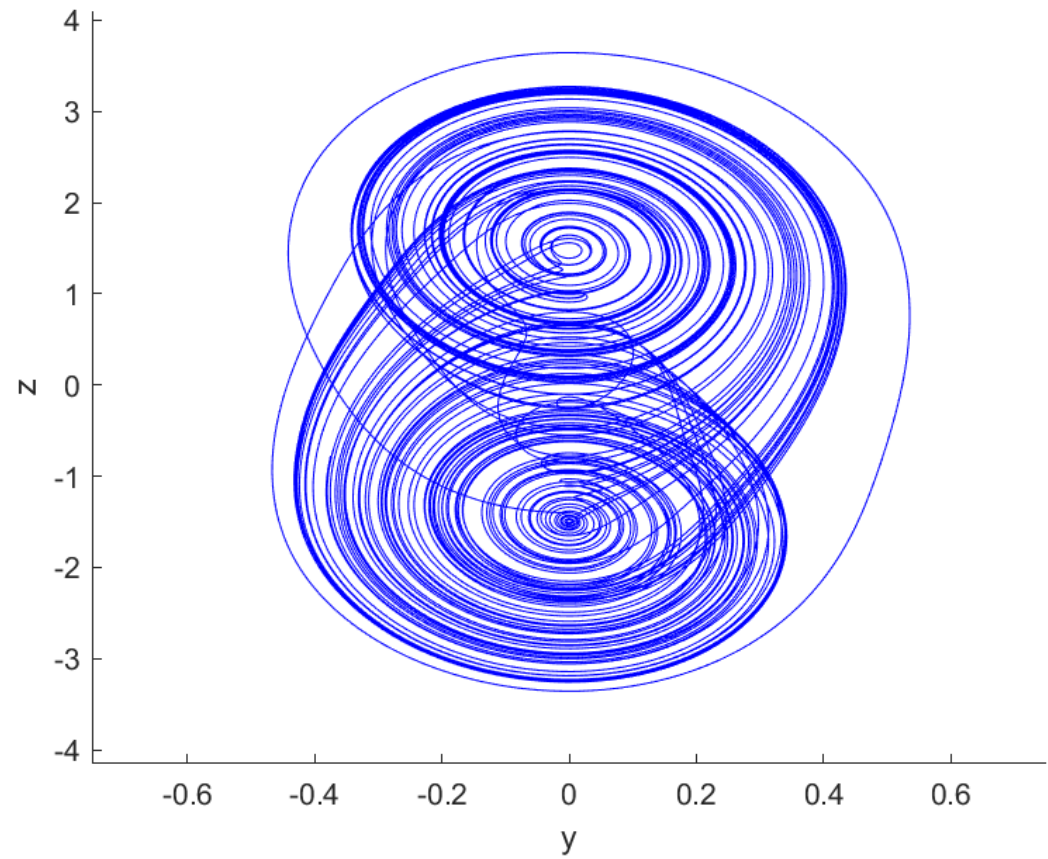
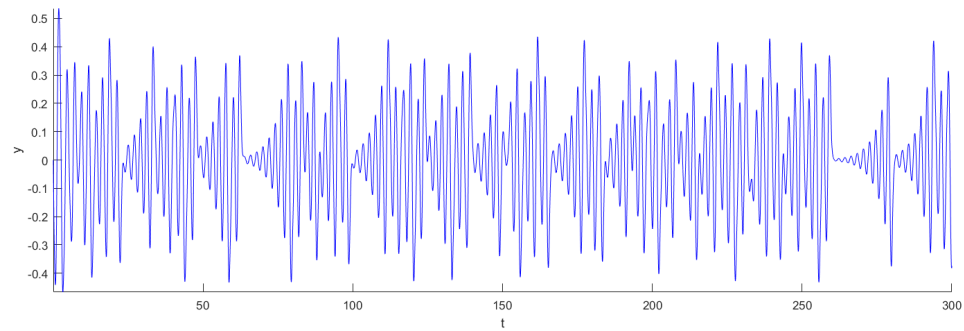
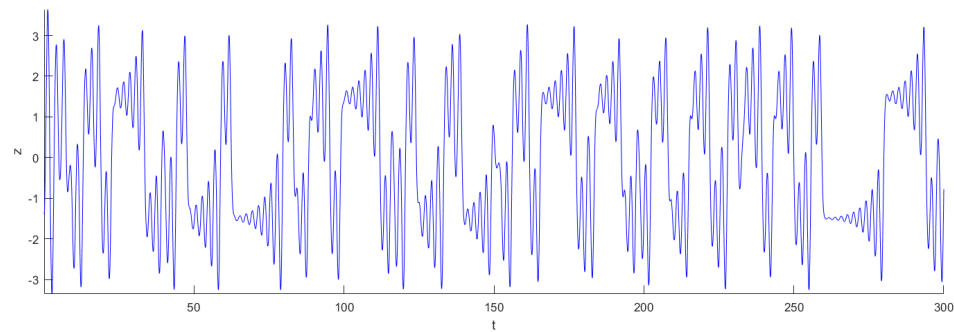
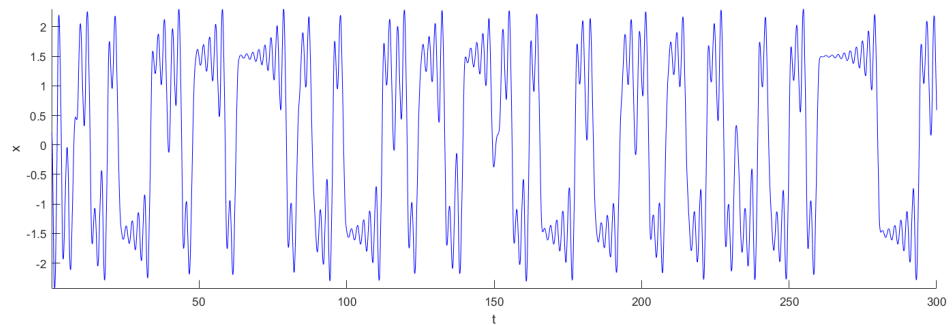
$h(x)$ with $m_0 = -1$, $m_1 = 4$.

$$\begin{bmatrix} \dot{x} \\ \dot{y} \\ \dot{z} \end{bmatrix} = \begin{bmatrix} \alpha(y - h(x)) \\ x - y + z \\ -\beta y \end{bmatrix}$$









$$(\alpha, \beta, m_0, m_1) = (9.85, 14.3, -1/7, 2/7).$$