



$$\begin{aligned}\dot{y}_1 &= y_1 - y_2 - y_1 (y_1^2 + y_2^2) + \epsilon_{y_1} \\ \dot{y}_2 &= y_1 + y_2 - y_2 (y_1^2 + y_2^2) + \epsilon_{y_2}\end{aligned}$$

