

$$\begin{aligned}\frac{dX_1}{dt} &= -\frac{1}{5}X_1^2 - \frac{1}{10}X_1X_2 + X_1 \\ \frac{dX_2}{dt} &= -\frac{1}{5}X_1X_2 - \frac{1}{3}X_2^2 + X_2\end{aligned}$$