$p < 0$
$p = -0.5$

stable
$x_1^{*_1} = 0$
$x_2^{*_1} = 0$
$x \in D_{s11}$

$x \in D_u$ $x \in D_{s11}$

Unknown
$x \in D_u$

unstable
$x_1^{*_2} = -0.7579$
$x_2^{*_2} = -0.8705$

$$\begin{bmatrix} \dot{x}_1 \\ \dot{x}_2 \end{bmatrix} = \begin{bmatrix} -px_2 - x_1^3 \\ -x_2^2 - x_1 \end{bmatrix}$$