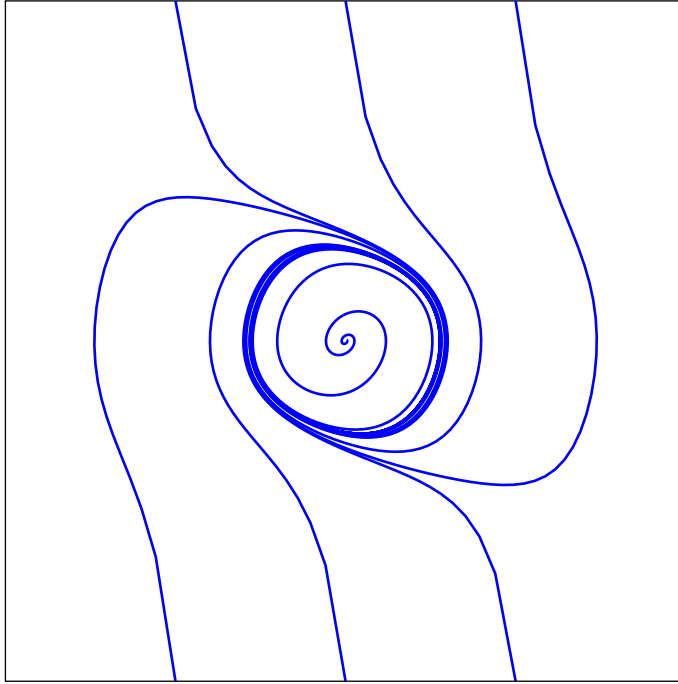$$\dot{x} = y \tag{1}$$

$$\dot{y} = 0.5 \cdot y - x - y^3 \tag{2}$$


```
\def\Func{y[1]|0.5*y[1]-y[0]-y[1]^3}
\psset{unit=1.25cm,algebraic=true,linewidth=0.5pt}

\begin {pspicture}(-3,-3)(3,3)
\psframe(-3,-3)(3,3)
\psset{method=rk4,plotpoints=400,linecolor=blue,linewidth=1pt,
whichabs=0,whichord=1}
\multido{\r=-1.5+1.5}{3}{%
\psplotDiffEqn{0}{30}{\r\space -3}{\Func}
\psplotDiffEqn{0}{30}{\r\space 3}{\Func}}
\psplotDiffEqn[whichabs=0,whichord=1]{0}{30}{0.01 0.01}{\Func}
\end{pspicture}
```