$$\begin{bmatrix} x1(t) & x2(t) & x3(t) \\ y1(t) & y2(t) & y3(t) \end{bmatrix}_R$$

$$x := R_{[1..3]}$$
$$Y := R_{[4..6]}$$

$$a(p,i,j) := \frac{G \cdot M_i \cdot (p_i - p_j)}{\text{norme}\left(\begin{bmatrix} x_i & Y_i \end{bmatrix} - \begin{bmatrix} x_j & Y_j \end{bmatrix}\right)^3}$$

$$\Sigma a(p,j) := \begin{vmatrix} \text{for } i \in [1\ 2\ 3] \\ \quad a_i := a(p,i,j) \\ \sum a \end{vmatrix}$$

$$G := 1 \qquad m_1 := 30 \qquad m_2 := 2 \qquad m_3 := 0.5 \qquad t_{end} := 1 \qquad M := \text{stack}(m_1, m_2, m_3)$$

$$\begin{aligned}
x1''(t) &= \Sigma a(x,1) & x1(0) &= 0 & x1'(0) &= -1 \\
x2''(t) &= \Sigma a(x,2) & x2(0) &= -3 & x2'(0) &= 1 \\
x3''(t) &= \Sigma a(x,3) & x3(0) &= -3.1 & x3'(0) &= 2 \\
y1''(t) &= \Sigma a(y,1) & y1(0) &= 0 & y1'(0) &= -1 \\
y2''(t) &= \Sigma a(y,2) & y2(0) &= -0.2 & y2'(0) &= 0 \\
y3''(t) &= \Sigma a(y,3) & y3(0) &= -0.1 & y3'(0) &= 0
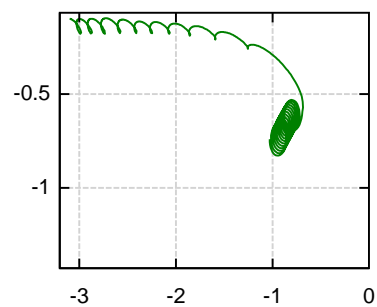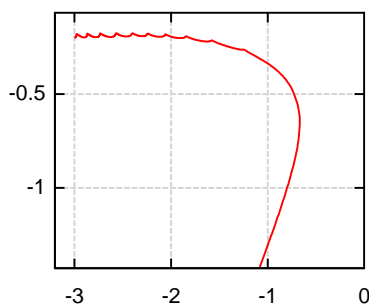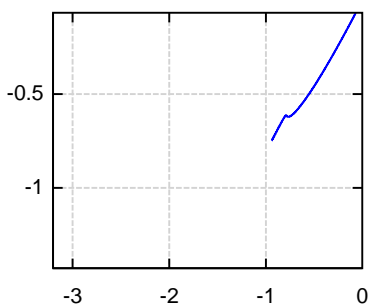\end{aligned}$$

$$M := \text{Rkadapt}(R, t_{end}, 1100)$$
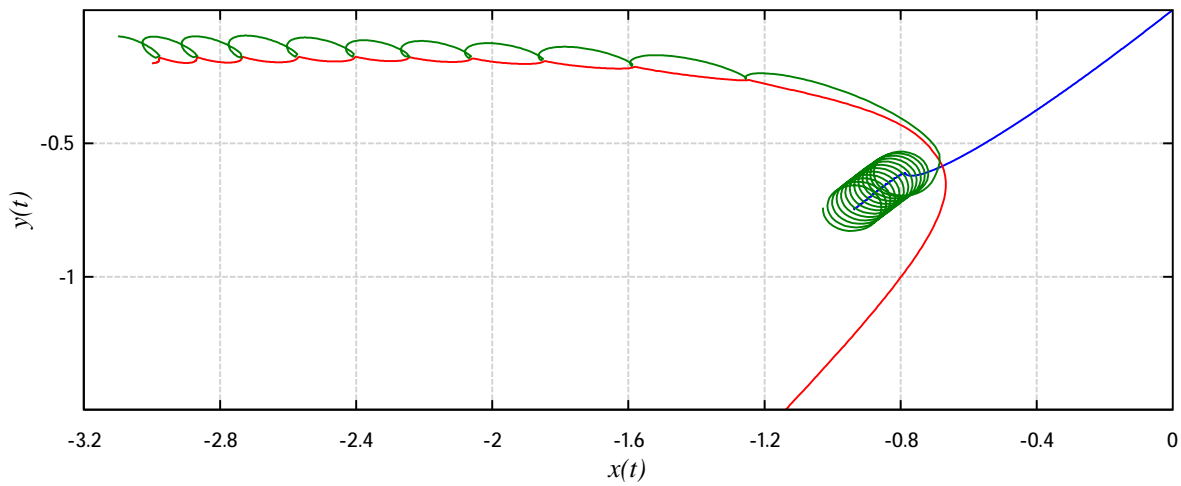
$$t := \text{col}(M, 1)$$

$m_1 = 30$	$m_2 = 2$	$m_3 = 0.5$
$\begin{bmatrix} x1(t) \\ y1(t) \end{bmatrix}$	$\begin{bmatrix} x2(t) \\ y2(t) \end{bmatrix}$	$\begin{bmatrix} x3(t) \\ y3(t) \end{bmatrix}$