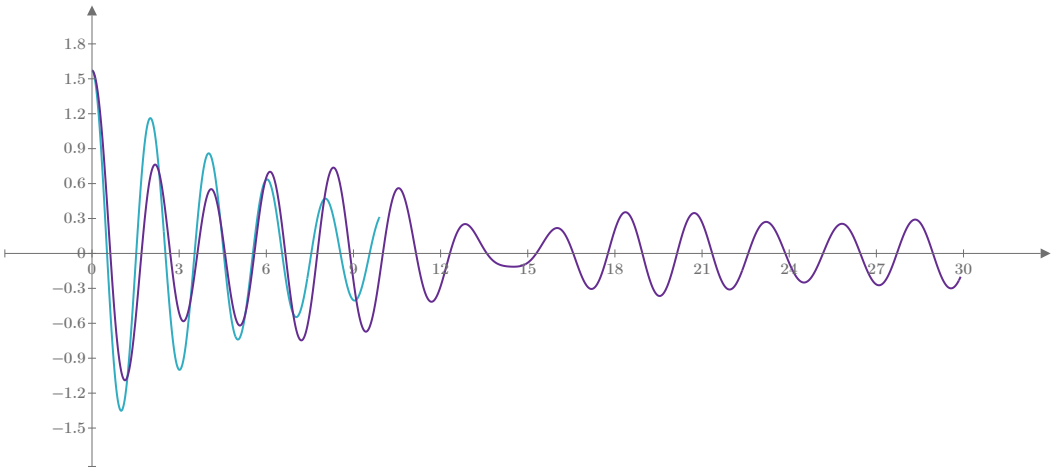
$m := 1$ $\quad g := 9.80665$ $\quad a := 0$

$l := 1$ $\quad v_0 := 2 \cdot \sqrt{g \cdot l}$ $\quad a := l$ $\quad v_0 := 0$ $\quad w_0 :=$

$\varphi_0 := \frac{\pi}{180} \cdot 90$ $\quad y := \begin{bmatrix} v_0 \\ \varphi_0 \end{bmatrix}$ $\quad D1(t, y) := \begin{bmatrix} -w_0{}^2 \cdot \sin(y_1) - k \cdot y_0 + a \cdot \sin(w_1 \cdot t) \\ y_0 \end{bmatrix}$ $\quad Z1 := \text{rkfixed}($

$D2(t, y) := \begin{bmatrix} -w_0{}^2 \cdot y_1 - k \cdot y_0 \\ y_0 \end{bmatrix}$ $\quad Z2 := \text{rkfixed}($

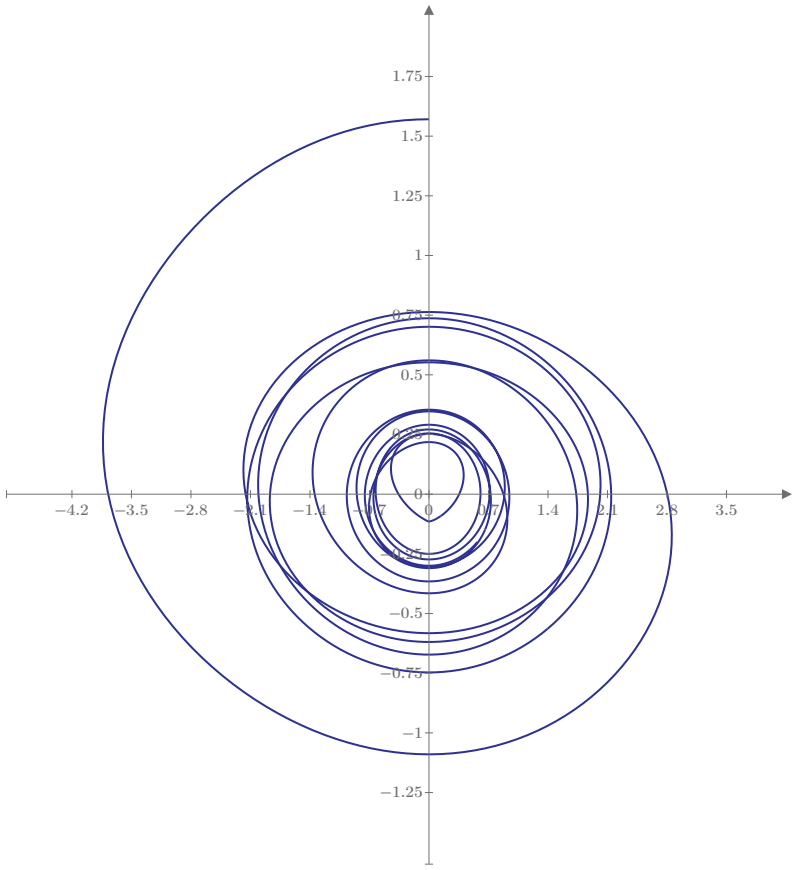



$Z2^{\langle 2 \rangle}$

$Z1^{\langle 2 \rangle}$

$Z2^{\langle 0 \rangle}$

$Z1^{\langle 0 \rangle}$




$\langle Z1^{\langle 1 \rangle} \rangle$

$\langle Z1^{\langle 2 \rangle} \rangle$