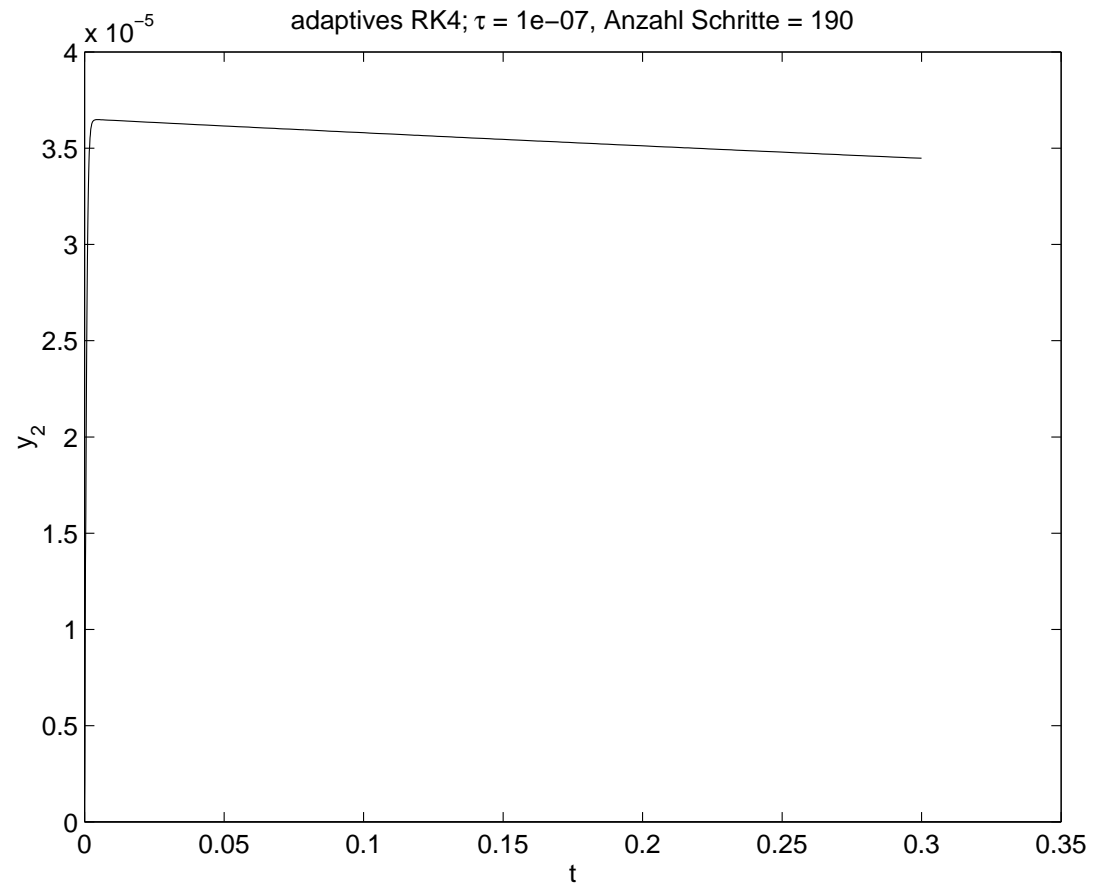
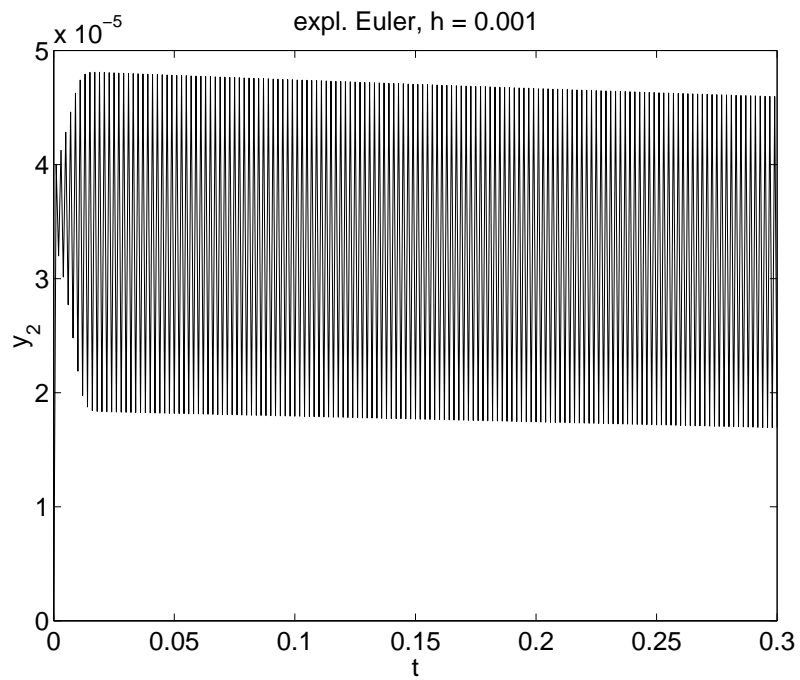
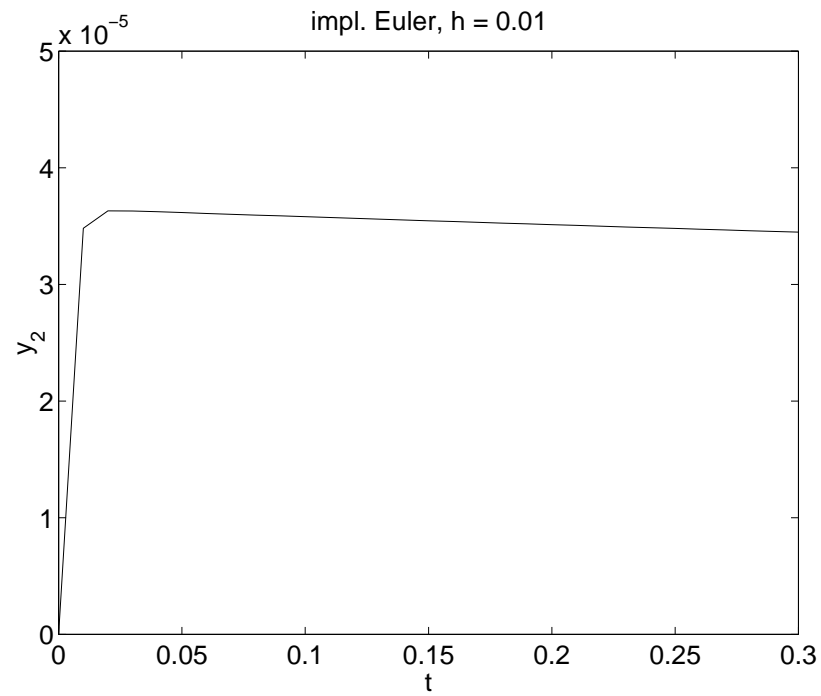
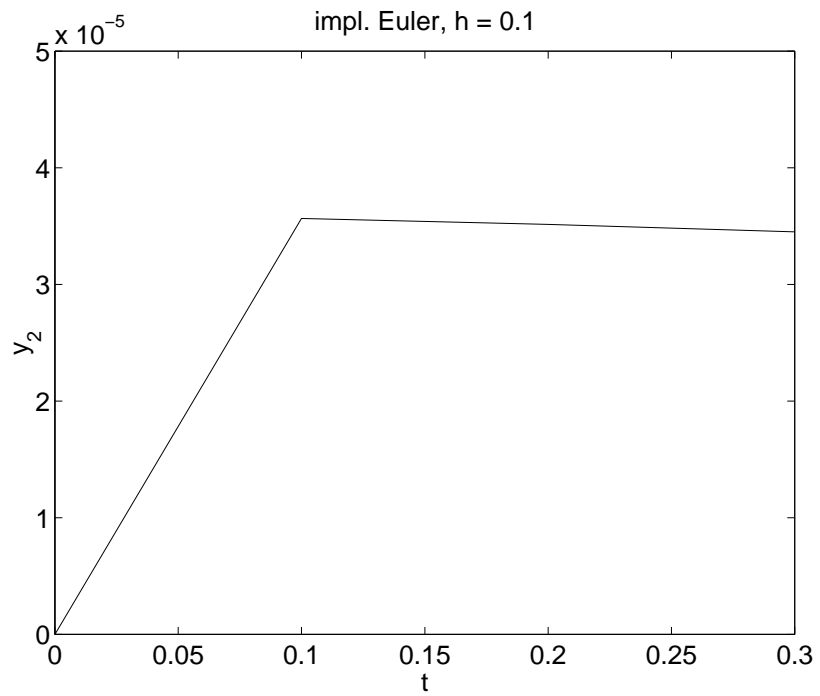


Robertson example: comparison of expl. & impl. Euler method

$$\begin{aligned}y_1' &= -0.04y_1 + 10^4 y_2 y_3 \\y_2' &= 0.04y_1 - 10^4 y_2 y_3 - 3 \cdot 10^7 y_2^2 \\y_3' &= 3 \cdot 10^7 y_2^2\end{aligned}$$





rel. error for $y_2(0.3)$

h	expl. Euler	impl. Euler
10^{-1}	2.0_{14}	1.0_{-3}
10^{-2}	NaN	1.0_{-4}
10^{-3}	5.0_{-1}	1.0_{-5}
10^{-4}	1.1_{-6}	1.1_{-6}
10^{-5}	1.1_{-7}	1.1_{-7}