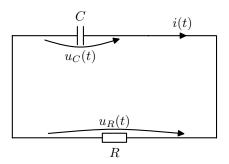


# Beispiel



## Beispiel

$$u_C(t) = u_R(t) := u(t)$$

$$i(t) = \frac{-u_R(t)}{R}$$

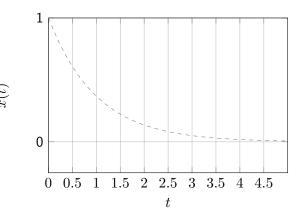
$$u_C(t) = u_0 + \frac{1}{C} \int_0^t i(t) dt$$

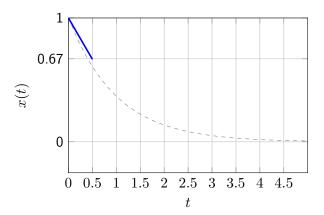
$$\dot{u}(t) = \frac{-1}{RC} u(t), \quad u(0) = u_0$$

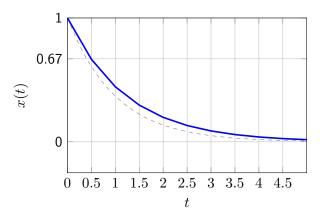
$$\dot{x} = \lambda x, \quad x(0) = x_0$$
hier:  $\dot{x} = -x$ 

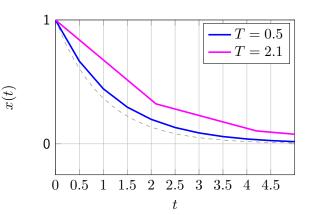
Echte Lösung:  $x(t) = x_0 e^{\lambda t}$ 

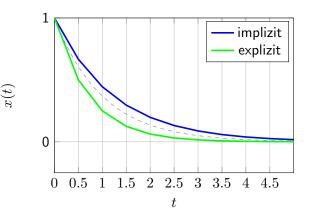
euler,im



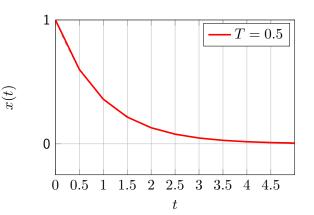




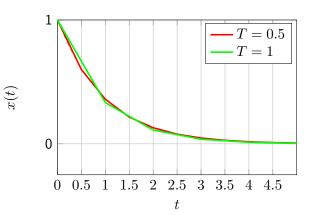




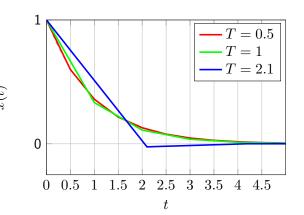
Trapez



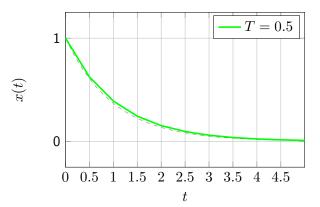
Trapez



Trapez



### Heun



### Heun

