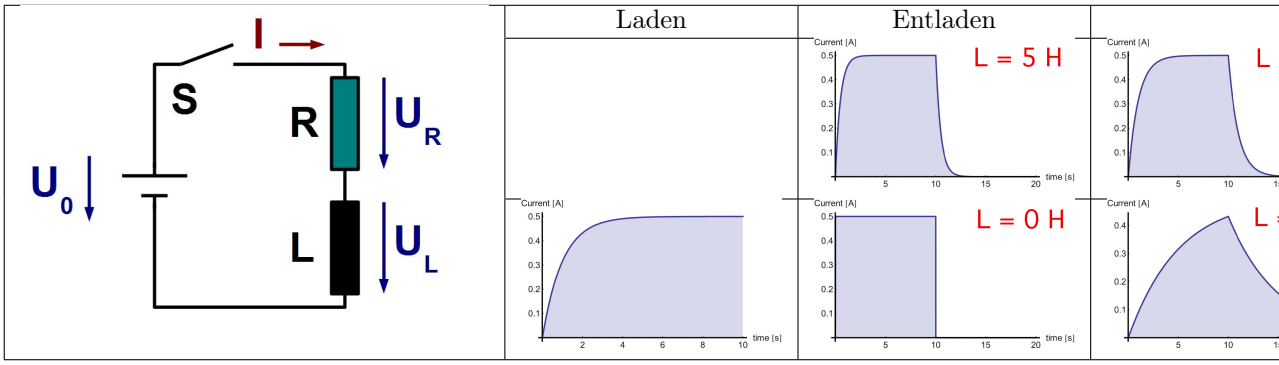
LR-Schaltung



Laden/Entladen:

$\frac{\Delta I}{\Delta t} = \frac{U_0}{L}$

$\frac{dI}{dt} = \frac{1}{L}(U_0 - RI(t))$

$\frac{dI(0)}{dt} = \frac{U_0}{L}$ (Laden)

$I(\infty) = \frac{U_0}{R}$ (Laden)

Induktive Zeitkonstante

$\tau_L = \frac{L}{R}$