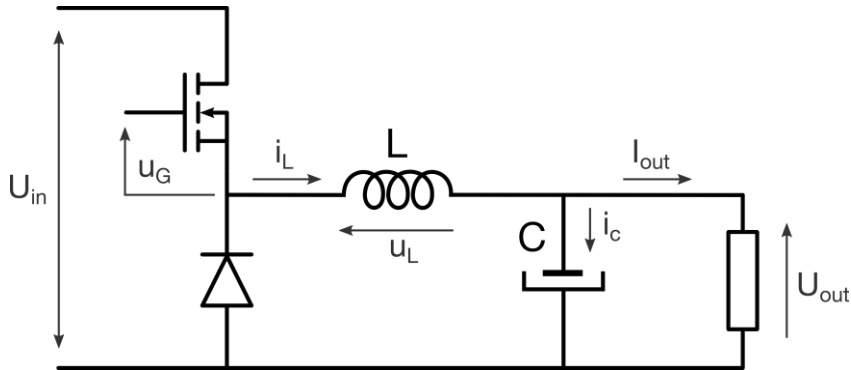


# DC POWER SUPPLY

## Assumptions and approximations

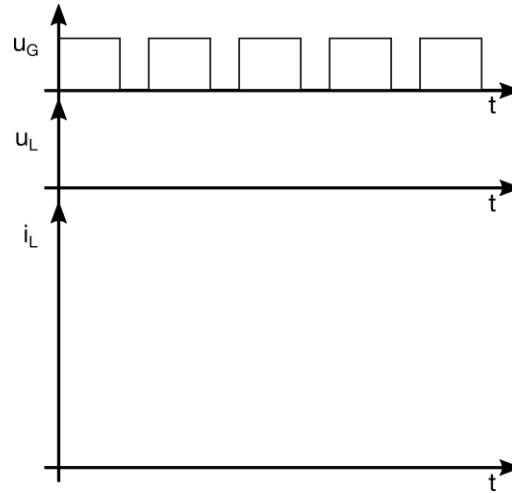
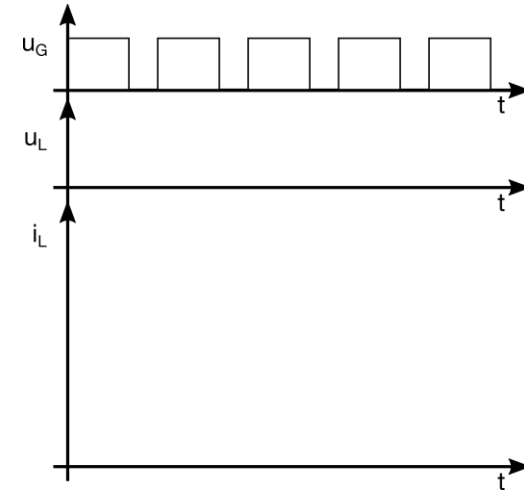
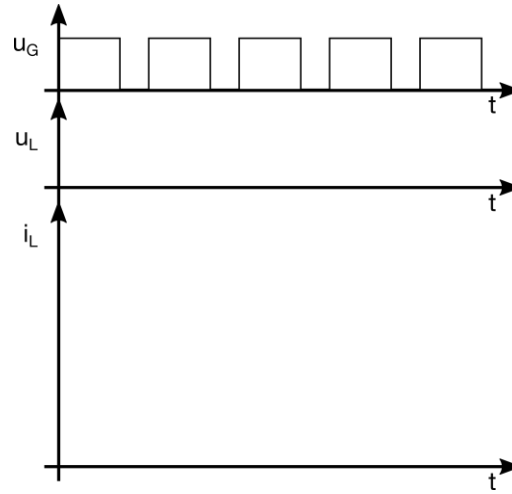
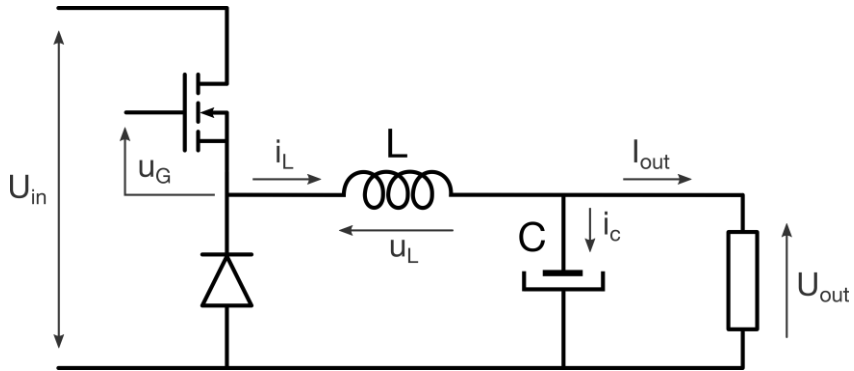


- Assumptions and approximations of importance for the analysis of DC power supplies:
  - Input voltage ( $U_{in}$ ) oscillations can be neglected, within  $T_s$  period.
  - Output voltage ( $U_{out}$ ) oscillations can be neglected while addressing other variables in the circuit ( $\Delta U_{out} \ll U_{out}$ ).
  - Output current ( $I_{out}$ ) oscillations can be neglected while addressing other variables in the circuit.
  - Parasitic elements ( $L, C$ ) are neglected.
  - Resistances of the  $L$  and  $C$  are neglected.
  - Skin effect is not considered...

# DC POWER SUPPLY

## Assumptions and approximations

- Steady state (?):



# DC POWER SUPPLY

## Assumptions and approximations

- Steady state (?):

