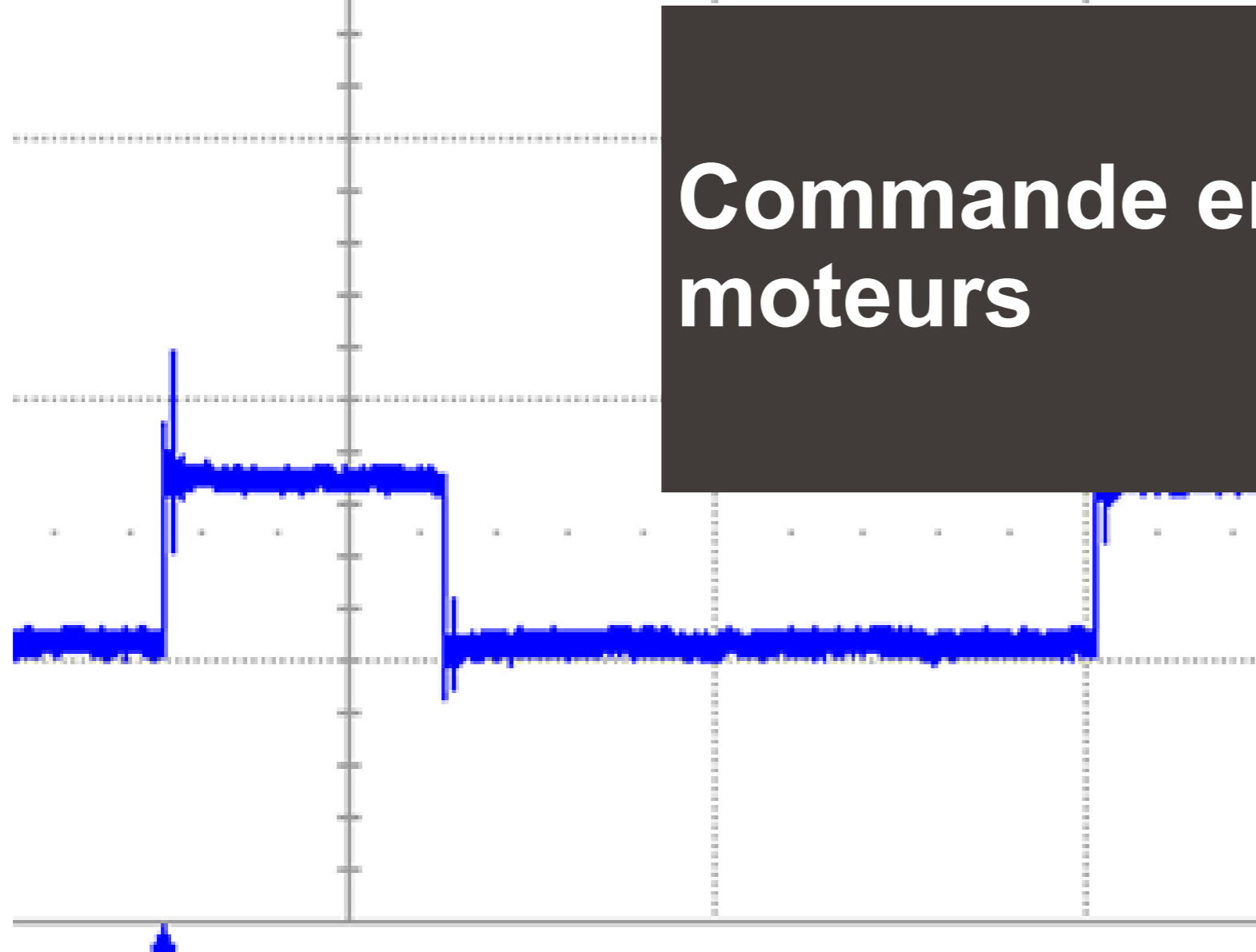


Introduction

Commande embarquée de moteurs



Christian Koechli

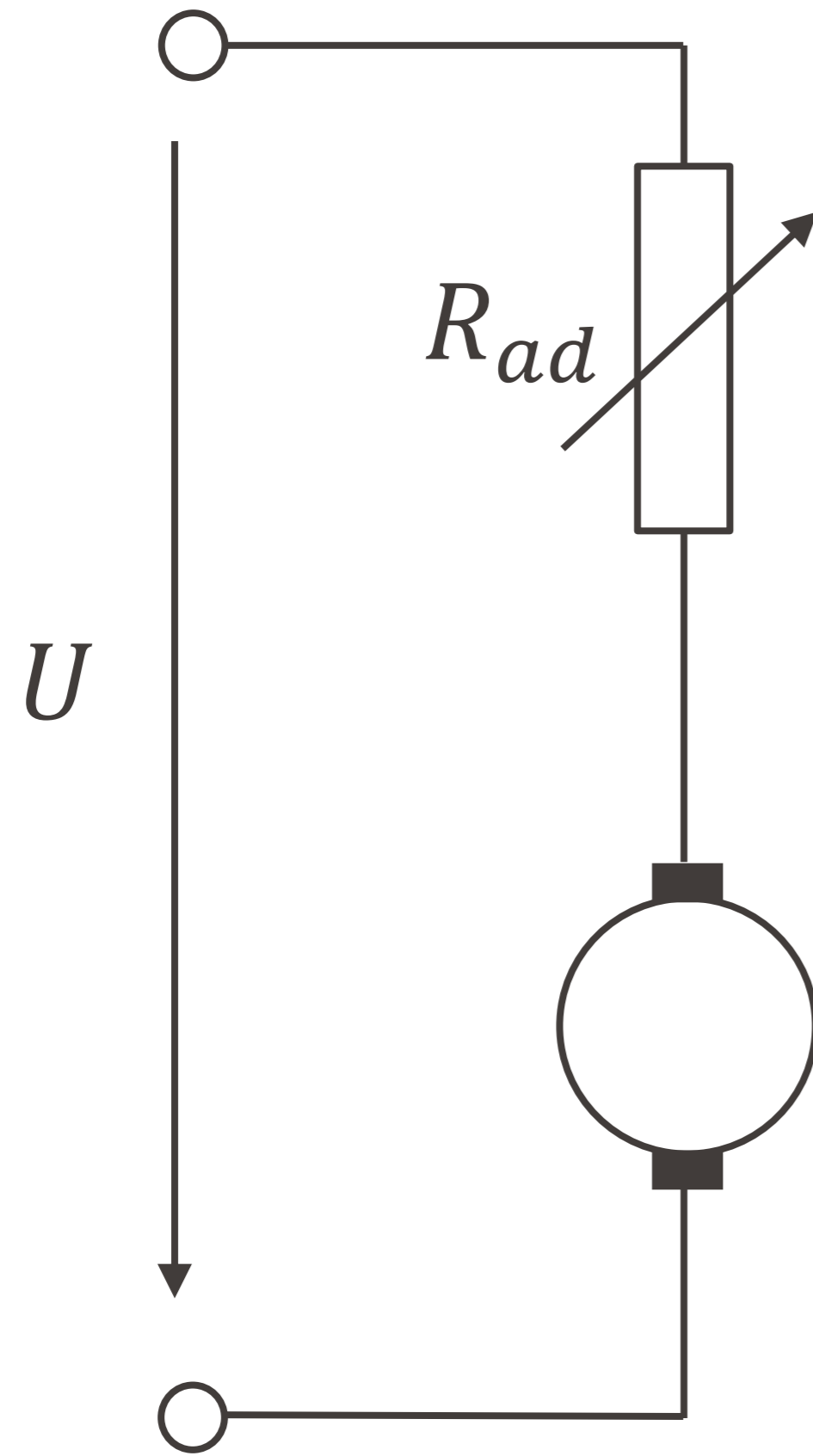
EPFL Exemple

- Varier la vitesse d'un moteur à courant continu:

$$U = RI + k_{\phi}\Omega$$

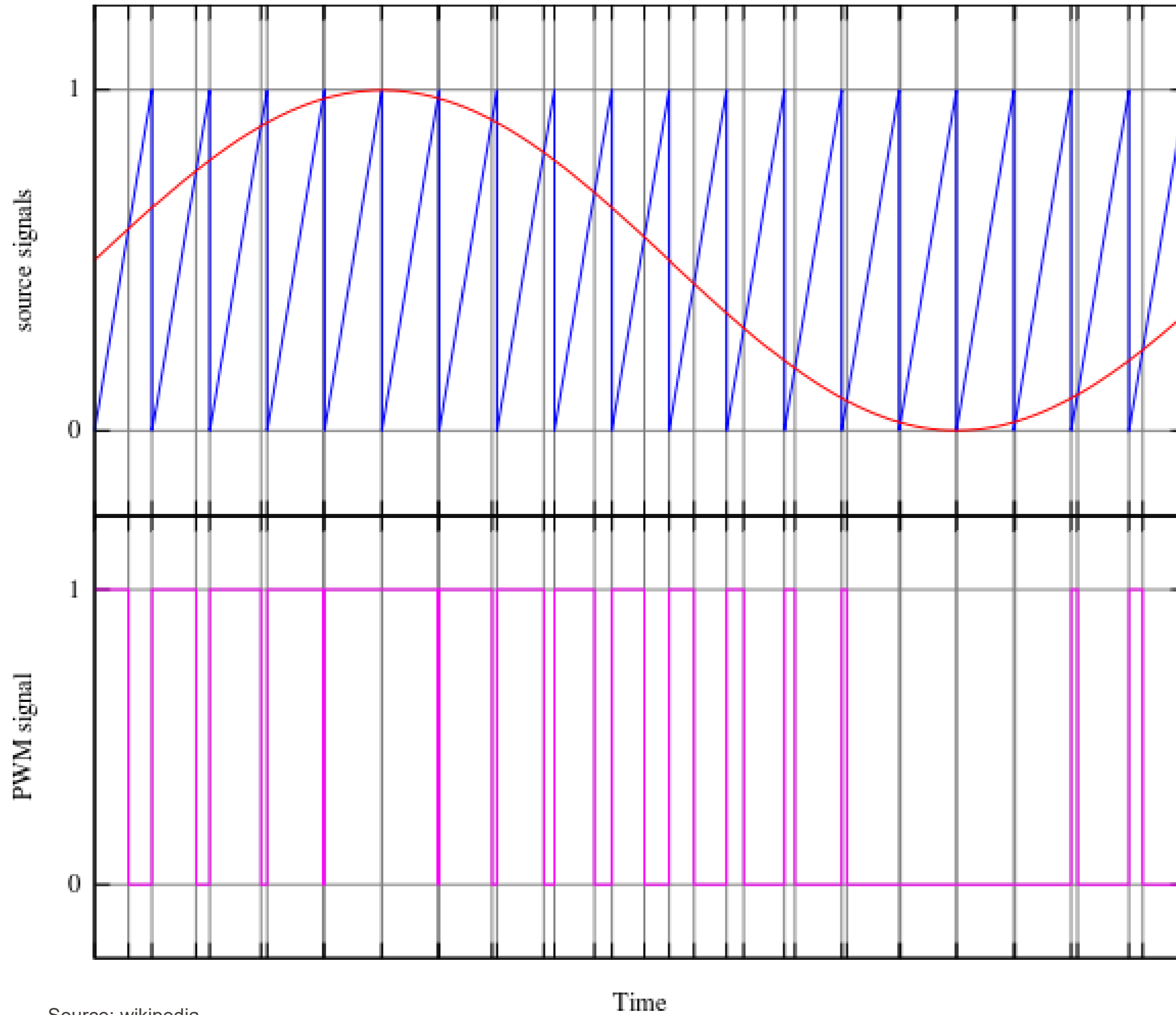


EPFL Historique

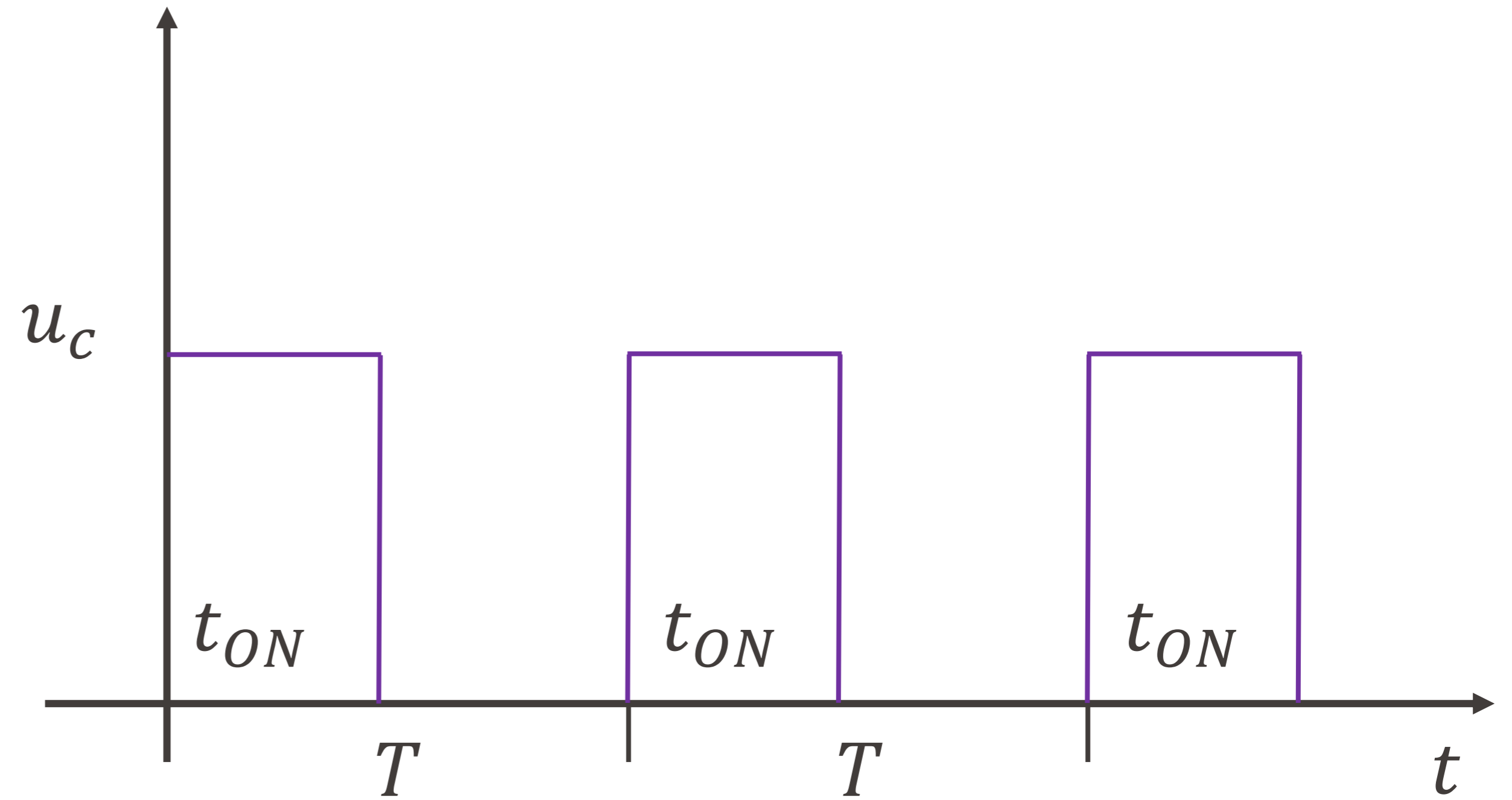
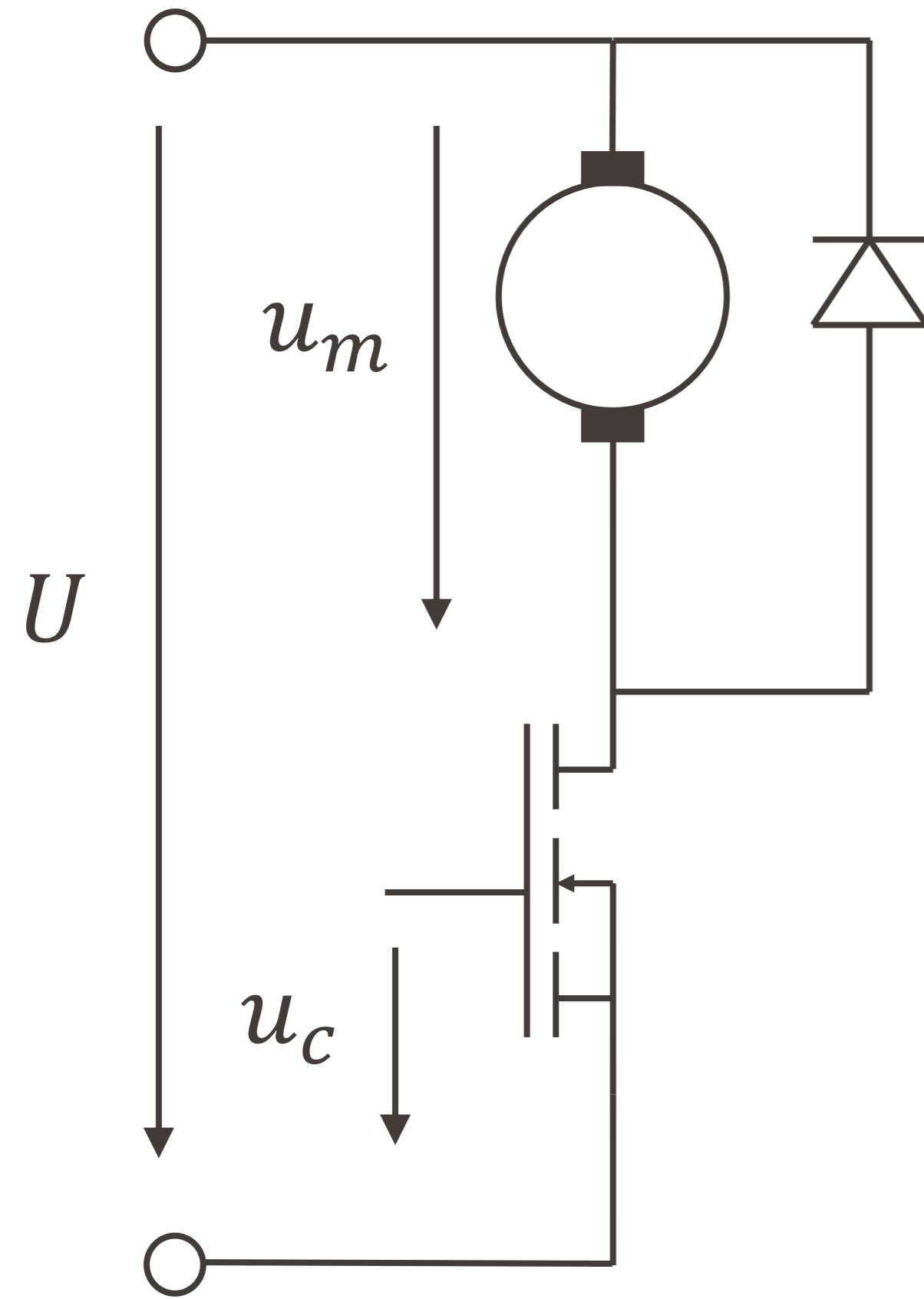


$$U = (R + R_{ad})I + k_{\phi}\Omega$$

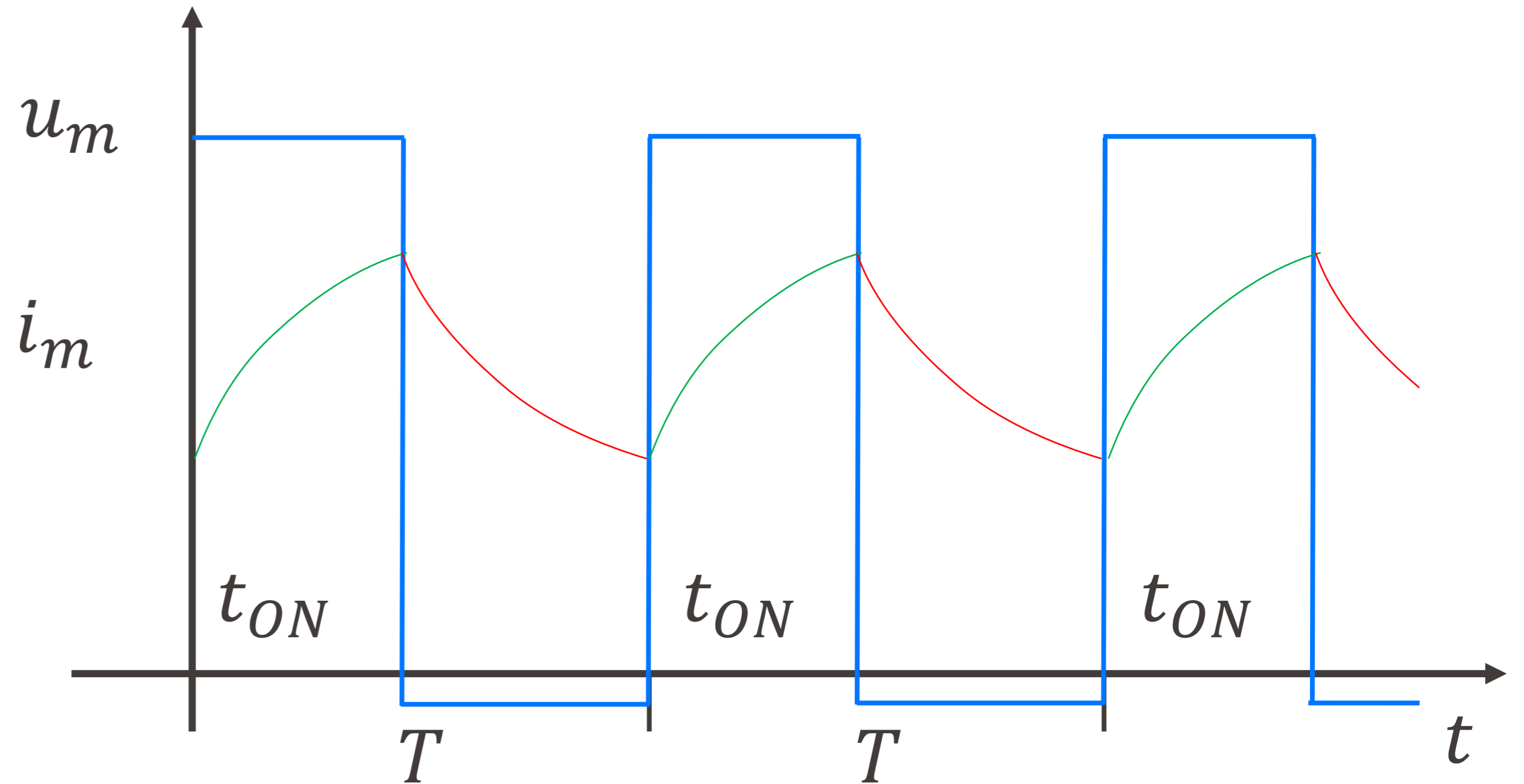
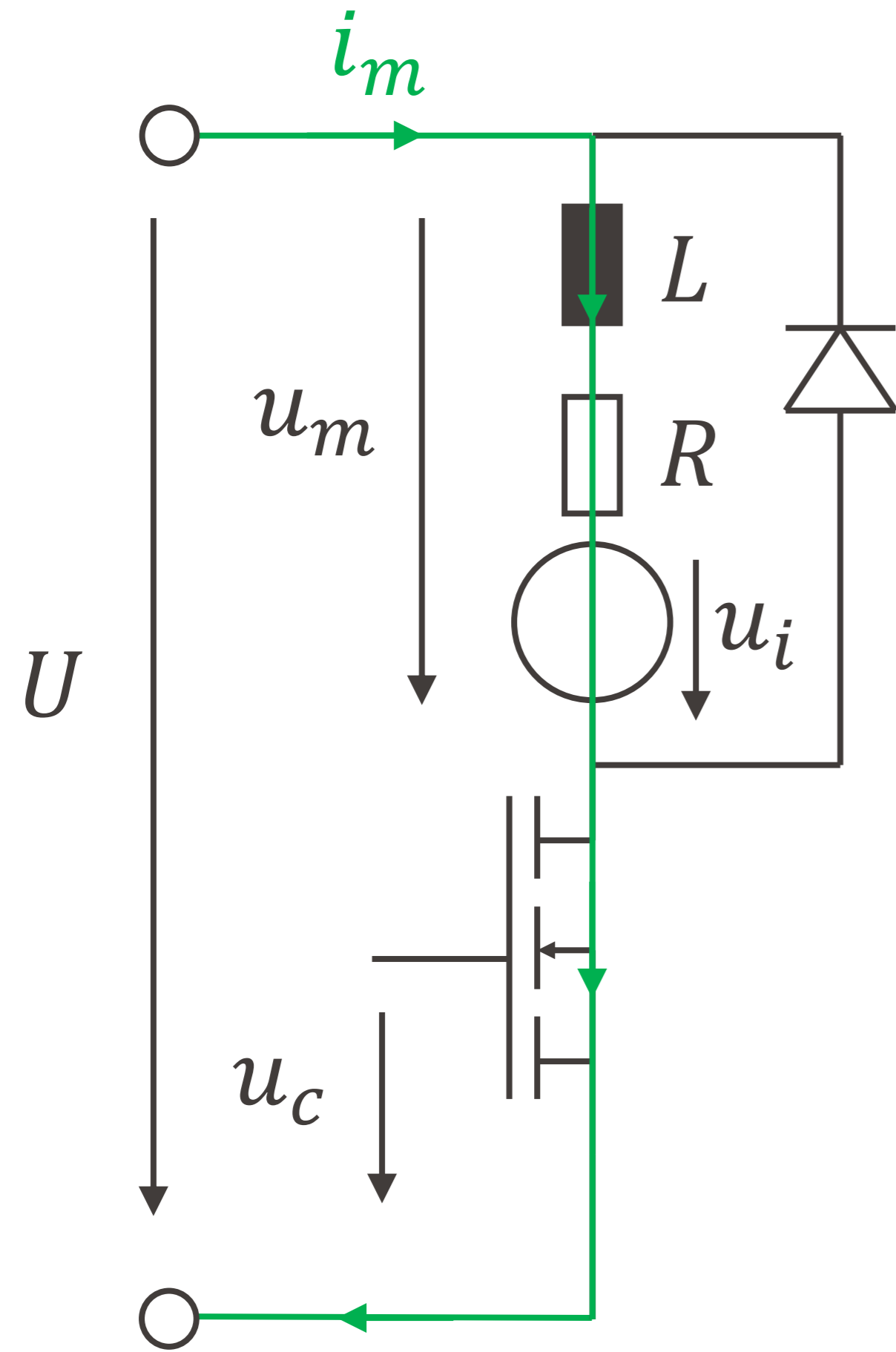
Modulation à largeur d'impulsion (PWM)



Implémentation: alimentation unipolaire



Implémentation: alimentation unipolaire



$$U = Ri_m + \frac{Ldi_m}{dt} + u_i$$

- Varier la vitesse d'un moteur CC
- Modulation (PWM)
- Montage unipolaire