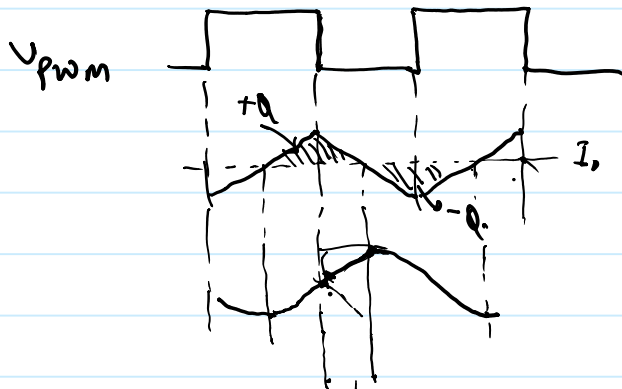
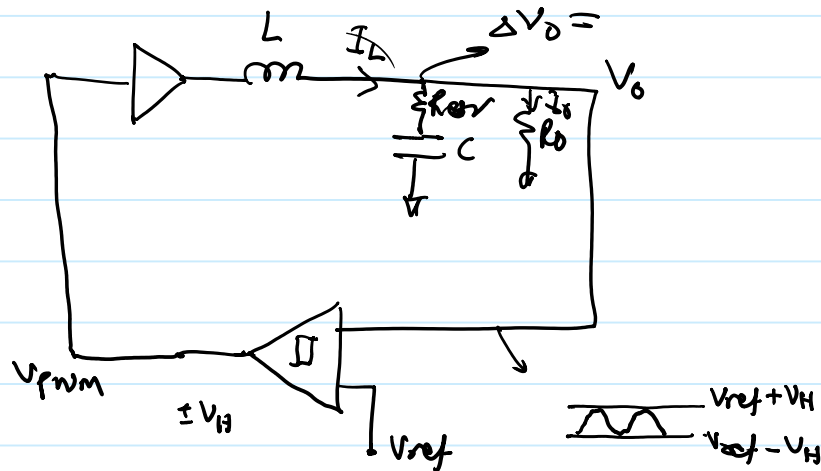


Hysteretic controlled dc-dc converter



$$\Delta V_{\text{err}} = \Delta I_L \times R_{\text{err}}$$

$$\Delta V_{\text{co}} =$$

$$\Delta I_L = \frac{V_{\text{in}} - V_o}{L} T_{\text{on}}$$

$$= \frac{V_{\text{in}} \cdot D(1-D)}{L} T_{\text{sw}}$$

$$\Delta V_{\text{err}} = \frac{V_{\text{in}} \cdot D(1-D)}{L} \cdot T_{\text{sw}} \times R_{\text{err}}$$

$$f_{\text{sw}} = \frac{V_{\text{in}} D(1-D)}{\Delta V_{\text{err}} \cdot L} \times R_{\text{err}}$$

$$\Delta V_{\text{err}} = \Delta V_H$$