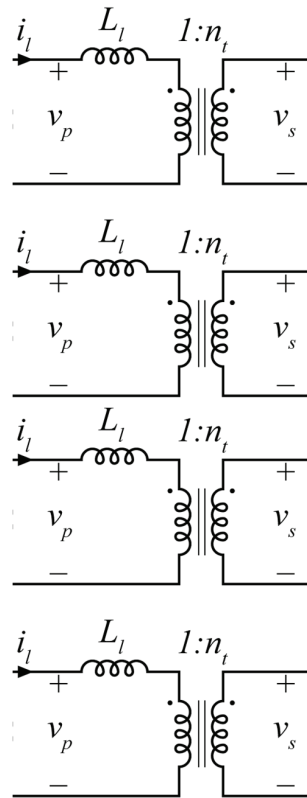
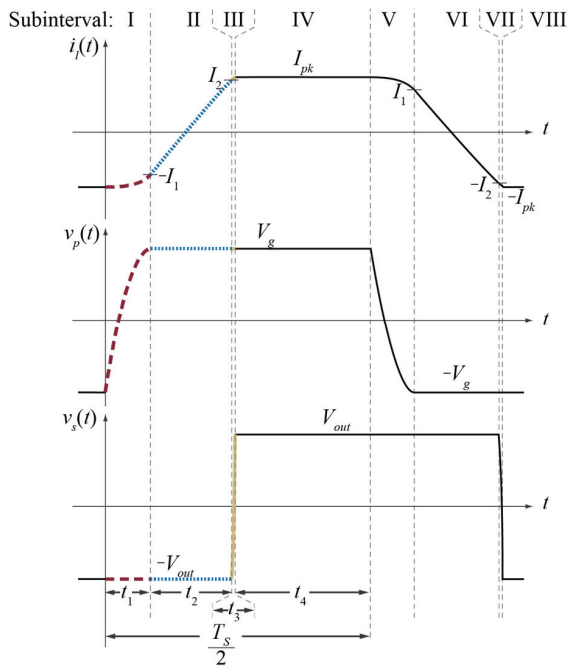
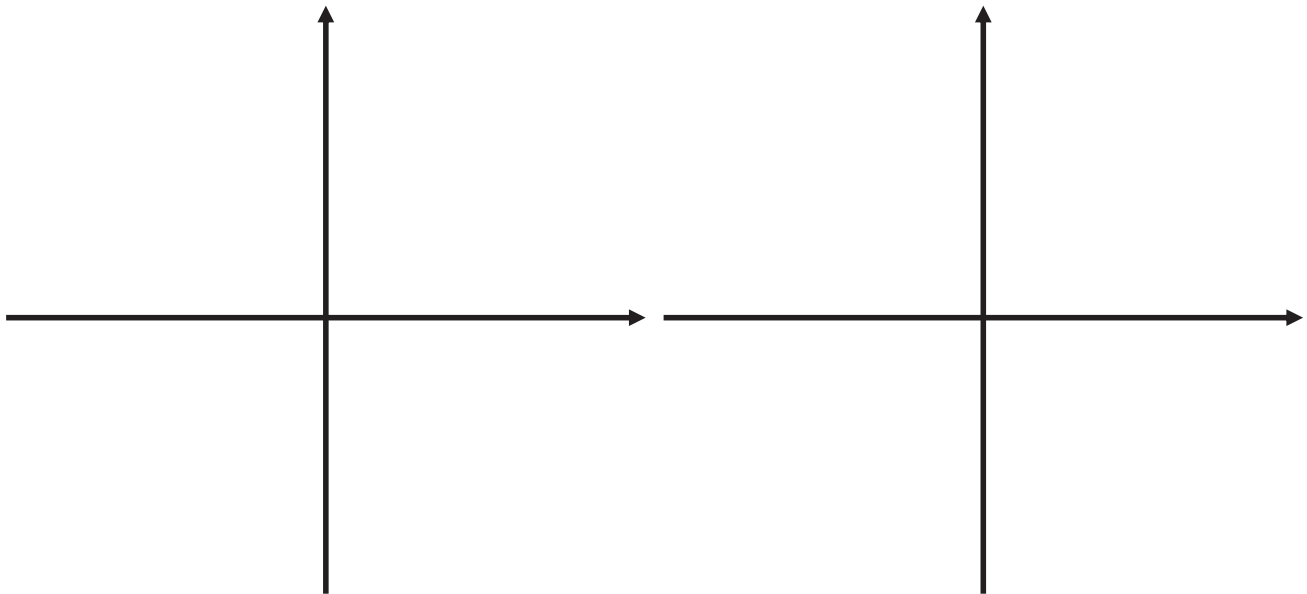


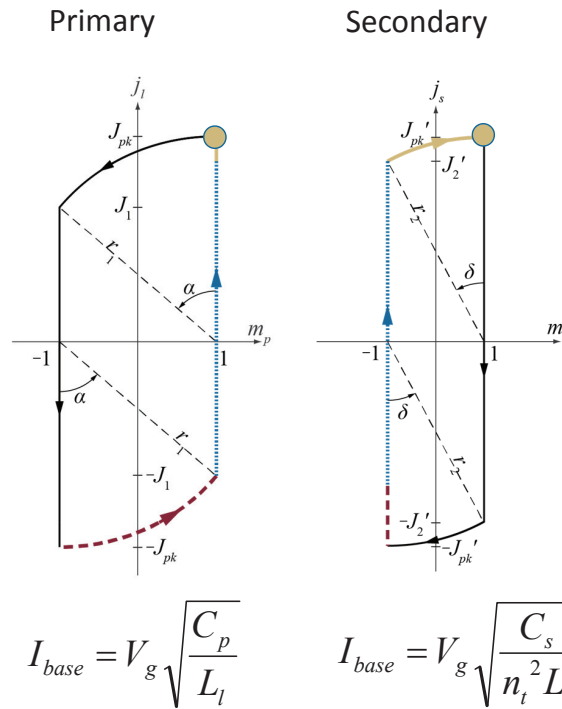
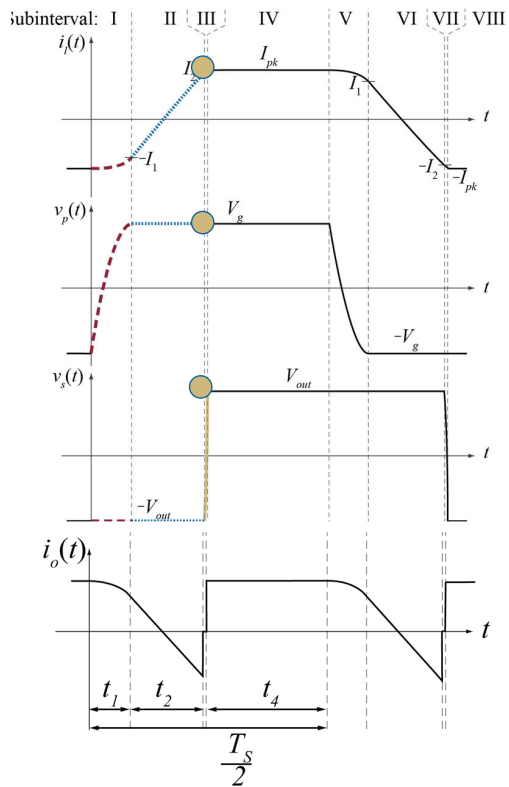
# DAB Operation Analysis



# DAB State Plane

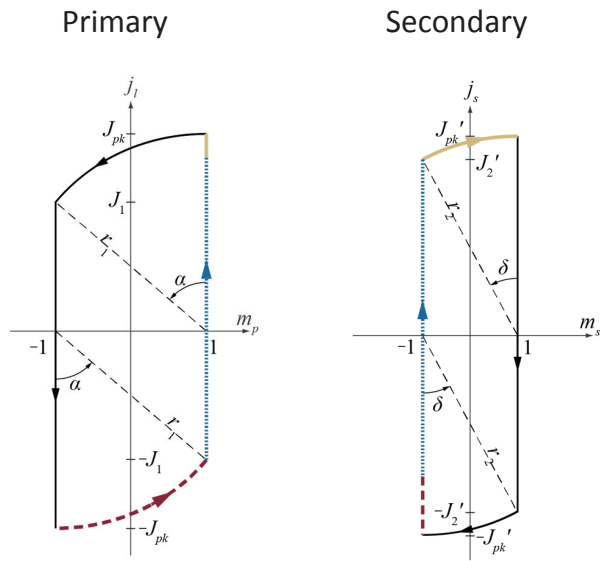


# State Plane Analysis of DAB Converter



## ZVS Condition

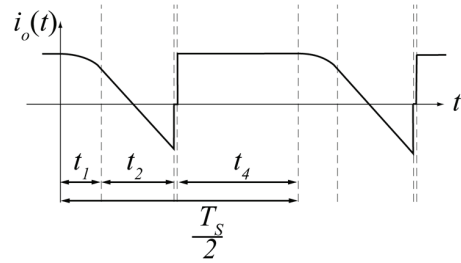
# State Plane Solution



$$I_{base} = V_g \sqrt{\frac{C_p}{L_l}}$$

$$I_{base} = V_g \sqrt{\frac{C_s}{n_t^2 L_l}}$$

## Averaging Step



# Output Plane

$$J = \frac{n \langle i_{out} \rangle}{I_{base}} = \frac{F}{\pi} \left[ 2 + \frac{1}{4} (J_1^2 - J_2^2) + J_p \left( \frac{\pi}{F} - \alpha - \beta - \delta \right) \right]$$

