



Amplification
 Y_i Capac / Resistance

$$G = \frac{V_A}{V_e} = G(p)$$

$$V^+ = V^- \Rightarrow = 0$$

Point A

$$i_1 = i_2 + i_3 = i_4$$

$$Y_1(V_e - V) = V Y_2 + V Y_3 + V Y_4$$

$$Y_1 V_e = V(Y_1 + Y_2 + Y_3 + Y_4) - Y_4 V_s$$

Point B

$$Y_3(V) = Y_3(V - V_s)$$

$$V Y_3 = -Y_3 V_s$$

$$V_s = V_s \left\{ -Y_4 Y_3 - \frac{Y_5}{Y_3} (Y_1 + Y_2 + Y_3 + Y_4) \right\}$$

$$\frac{V_s}{V_e} = \frac{-Y_1 Y_3}{Y_3 Y_4 + Y_5 (Y_1 + Y_2 + Y_3 + Y_4)}$$