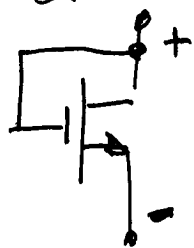


Sostituzione resistenza con canali attivi MOS

n-MOS $\Rightarrow$ tutte tecnologie n canale "enhancement"
 e-MOS $\Rightarrow$ sia n-channel che p-channel "enhancement"

n-MOS e c-MOS $\Rightarrow$ VLSI circuiti

- Canali

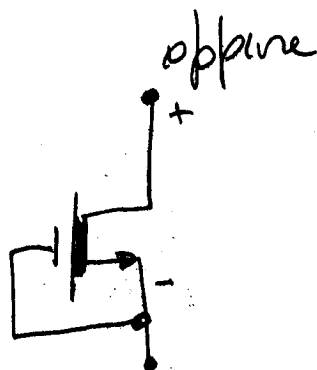


n-MOS enhancement GATE $\rightarrow$ DRAIN



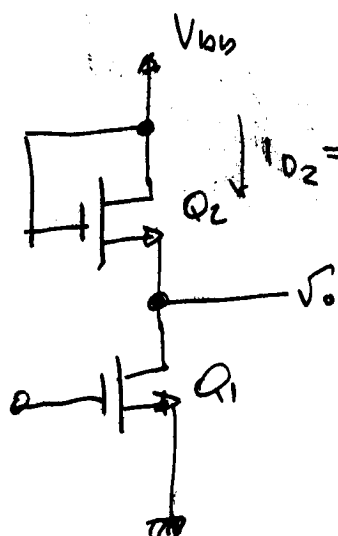
$$i = k(V - V_T)^2$$

sempre in regione di saturazione $V_{GS} > V_{GS} - V_T$



$$I_{DSS} = kV_T^2$$

Con canali attivi



tutti n-MOS enhancement
 idet: uguale V_T ma differenti k (k_1 e k_2)
 in saturazione: $I_{D1} = k_1(V_{GS1} - V_T)^2$

$$I_{D1} = I_{D2} = I_D \text{ e } V_{GS1} = V_T$$

$$I_D = k_1(V_T - V_T)^2 \text{ in } Q_1$$

$$I_D = k_2(V_{GS2} - V_T)^2 \text{ in } Q_2$$