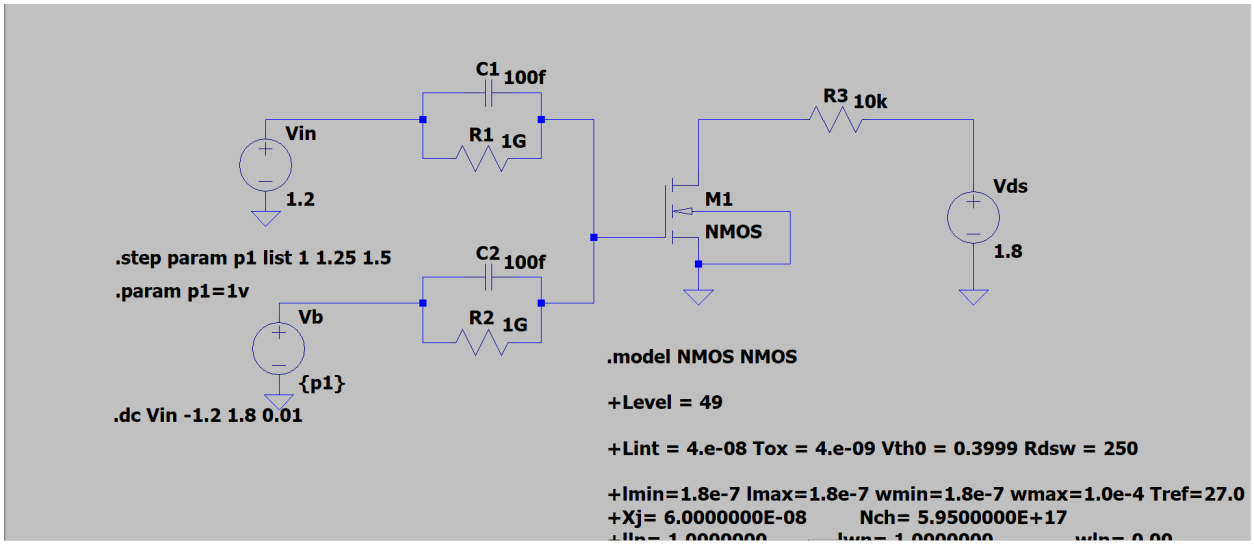
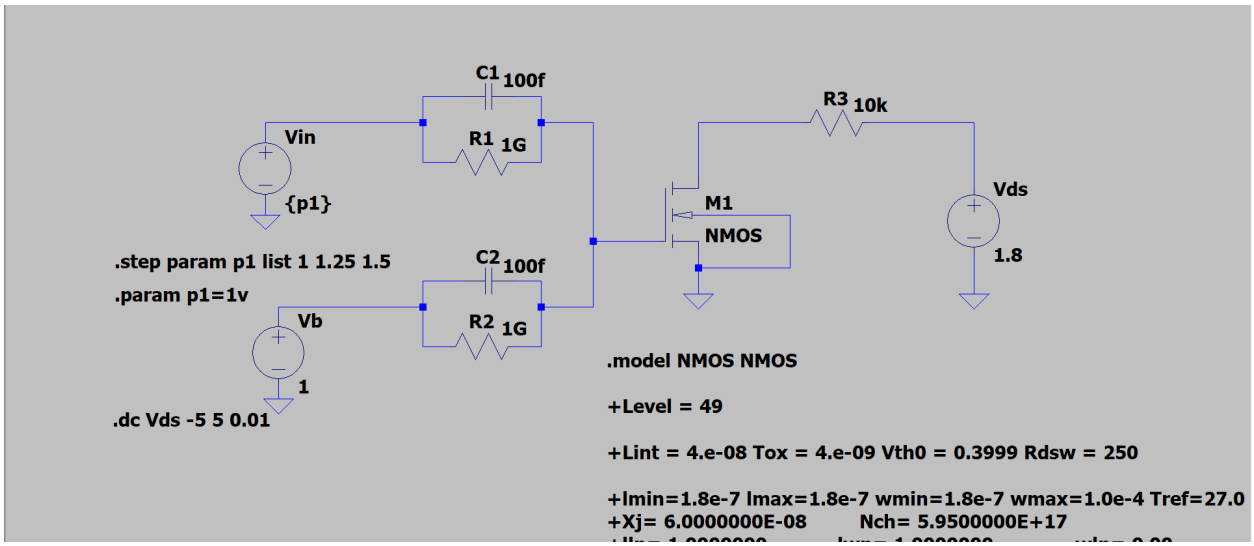
Schematics:

FG-NMOS

1a) Parametric analysis on Vb

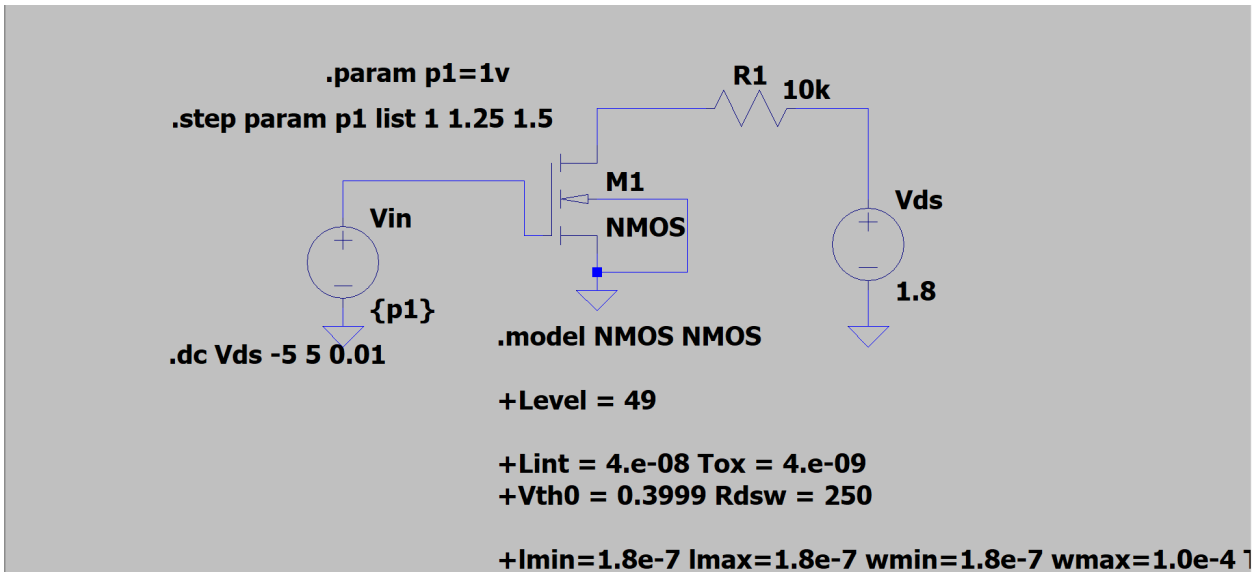


2a) Parametric analysis on Vin

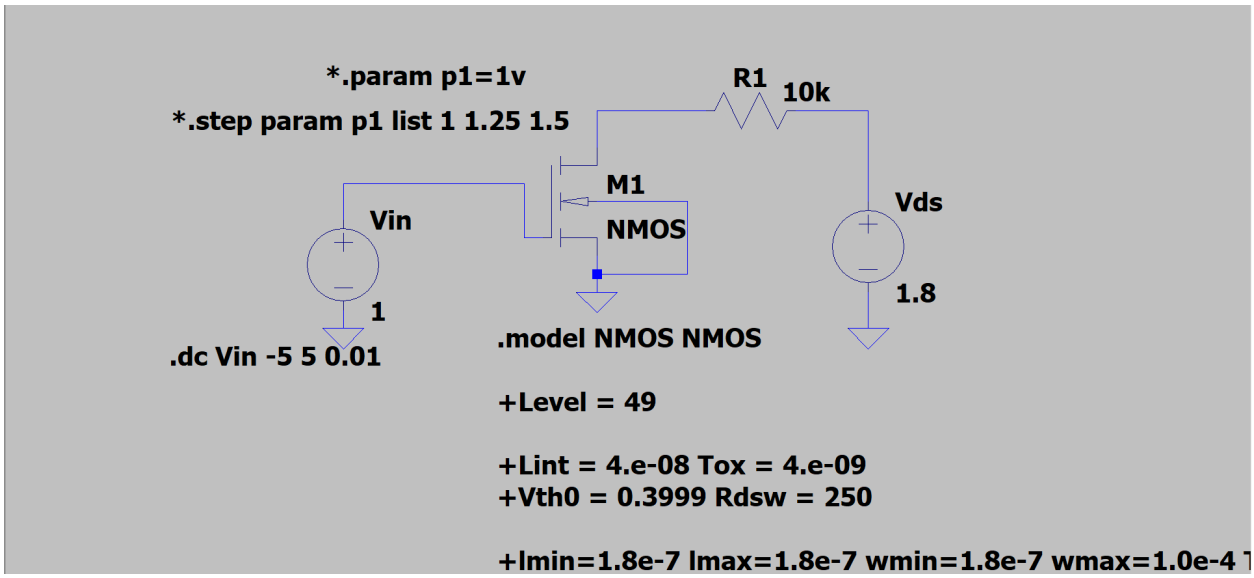


Conventional NMOS

3a) Parametric analysis on Vin

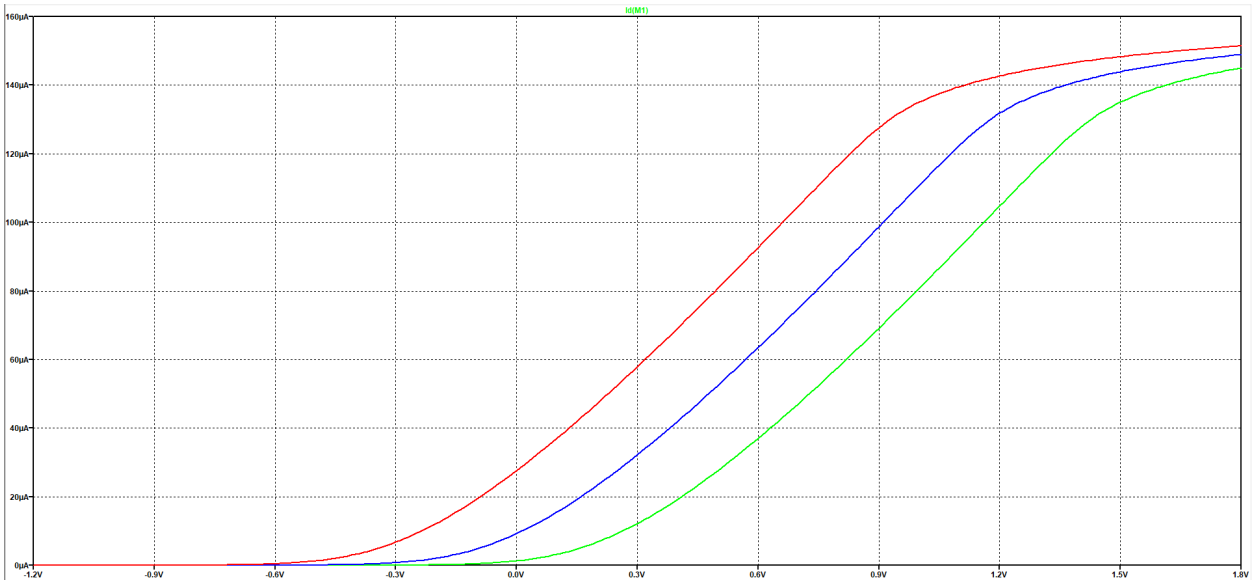


4a) Id vs Vgs

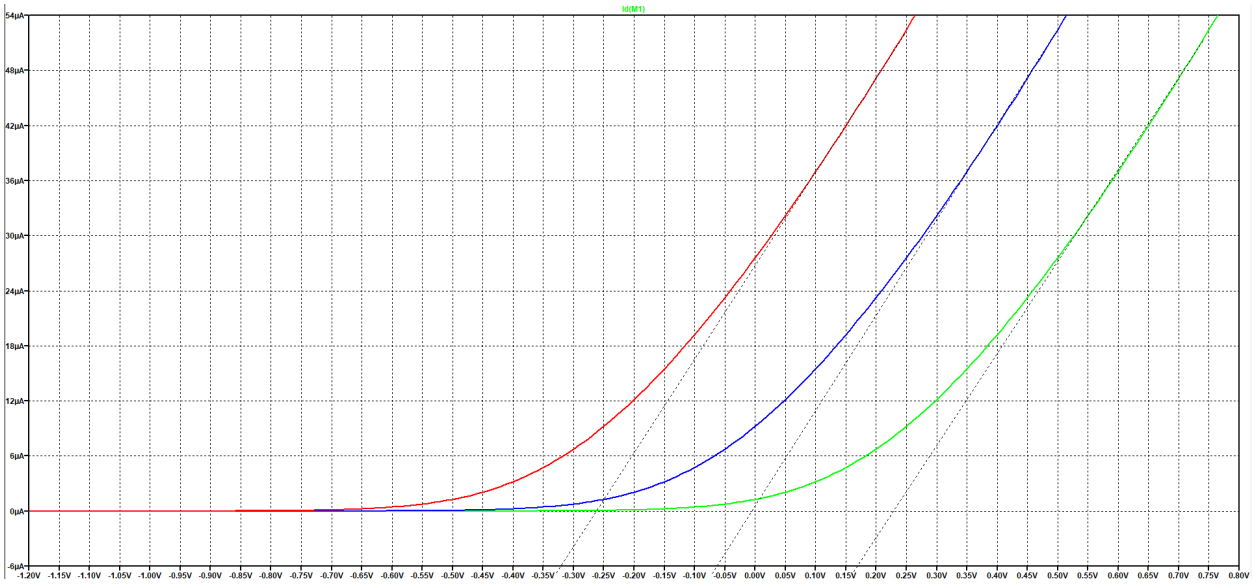


Outputs:

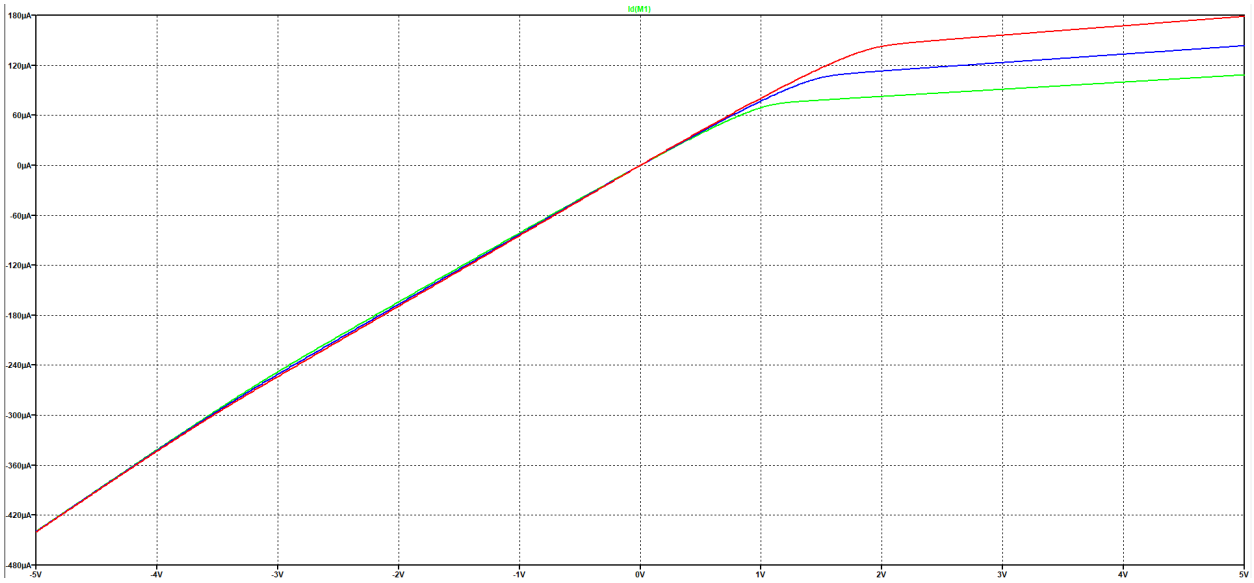
FG-NMOS
1b)



Extrapolation

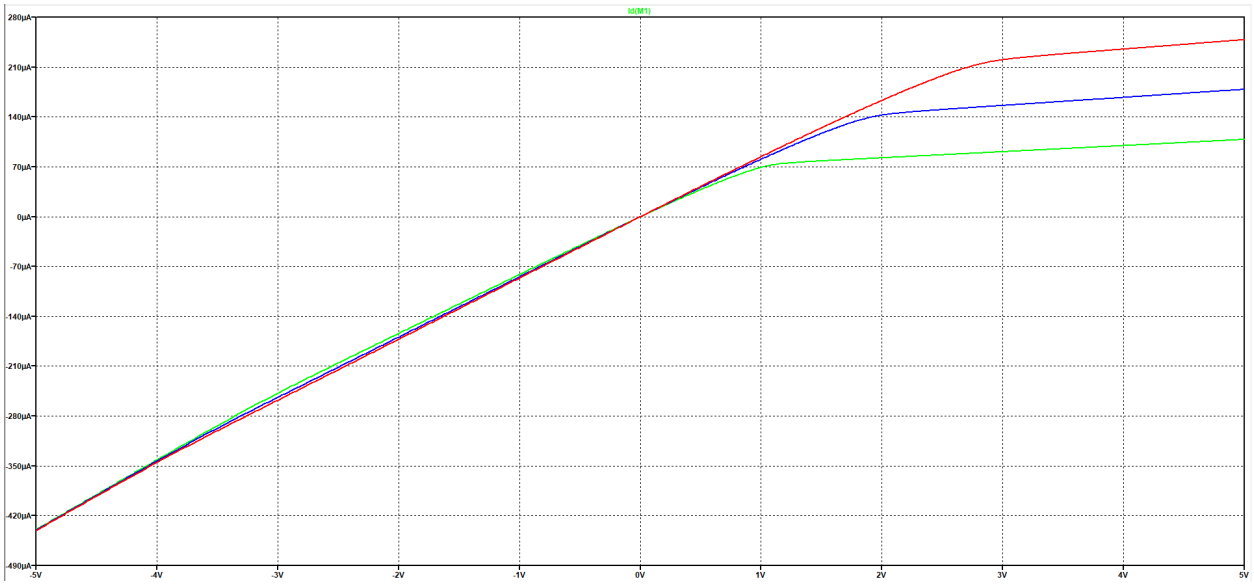


2b)

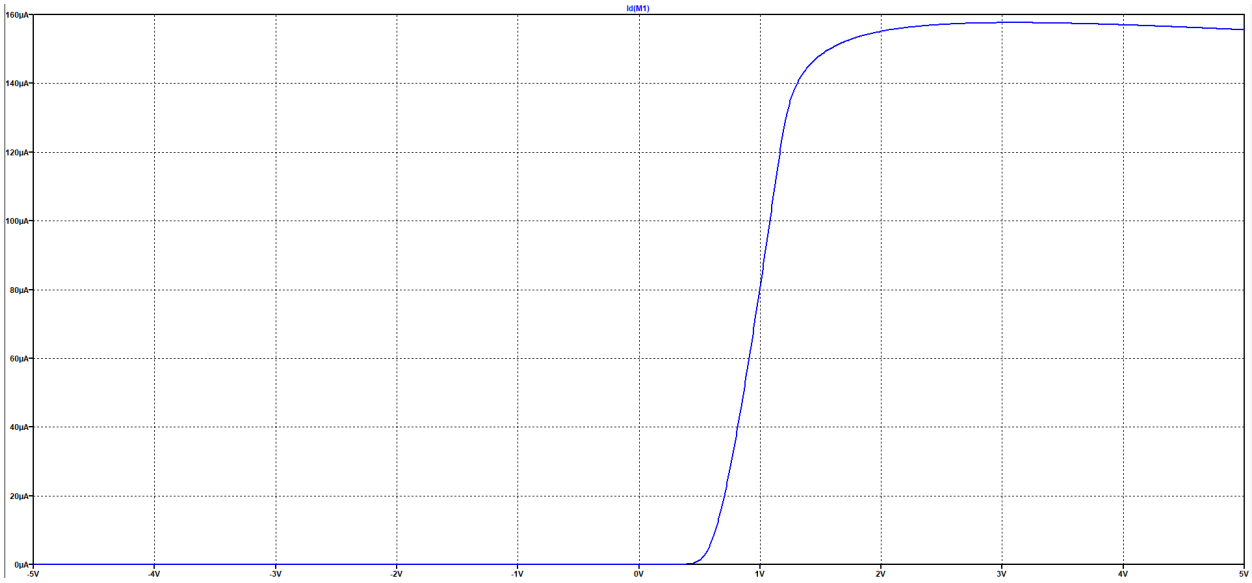


Conventional NMOS

3b)



4b)



Results:

FG-NMOS

Vin(V)	Vb(V)	Vth(V)
1.2	1	0.165
1.2	1.25	-0.065
1.2	1.5	-0.325

For conventional NMOS with Vin=1V, Vth=0.57V.