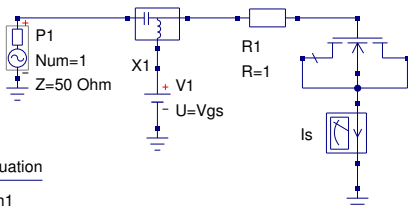


# dc simulation

DC1

number	C_parallel_plate
1	6.9e-14



# S parameter simulation

SP1  
 Type=const  
 Values=[1MHz]

# Parameter sweep

SW1  
 Sim=SP1  
 Type=lin  
 Param=Vgs  
 Start=-2  
 Stop=2  
 Points=81  
 EKV\_long1  
 L=1e-6  
 W=20e-6  
 VTO=0.6  
 GAMMA=0.71  
 PHI=0.97  
 KP=150e-6  
 THETA=50e-3  
 Temp=26.85  
 COX=3.45e-3  
 Xpart=0.4

## Equation

Eqn1  
 $PL\_Cap = \text{PlotVs}(\text{Cap}, \text{Vgs})$   
 $y = \text{stoy}(S)$   
 $\Omega = 2 * \pi * \text{frequency}$   
 $\text{Cap} = \text{imag}(y[1,1]) / \Omega$   
 $\text{Rin} = \text{real}(y[1,1]) / (\text{imag}(y[1,1]) * \text{imag}(y[1,1]))$   
 $L = 1e-6$   
 $W = 20e-6$   
 $\text{Cox} = 3.45e-3$   
 $\text{C\_parallel\_plate} = W * L * \text{Cox}$   
 $PL\_Cap\_ratio = \text{PlotVs}(\text{Cap} / \text{C\_parallel\_plate}, \text{Vgs})$

Vgs	frequency	Rin
-0.15	1e6	1
-0.1	1e6	1
-0.05	1e6	1
0	1e6	1
0.05	1e6	1
0.1	1e6	1

