

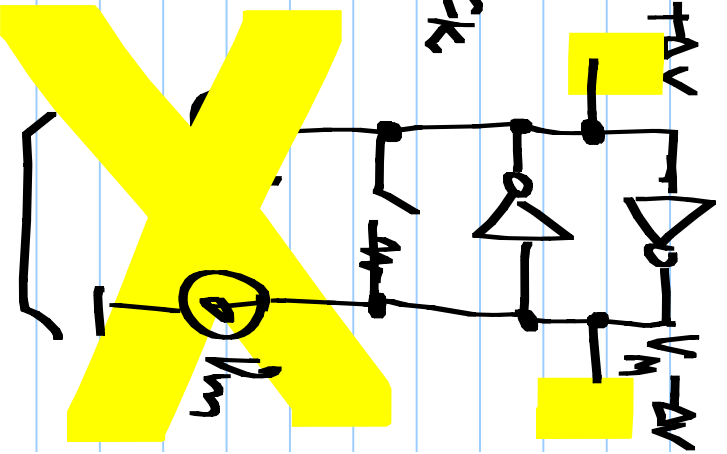
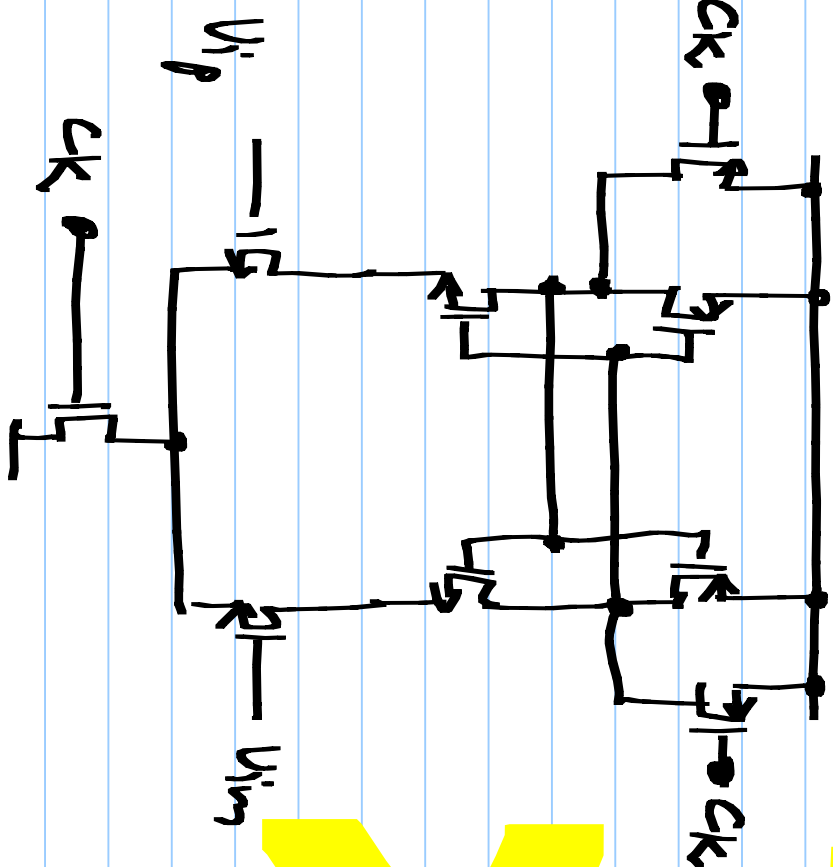
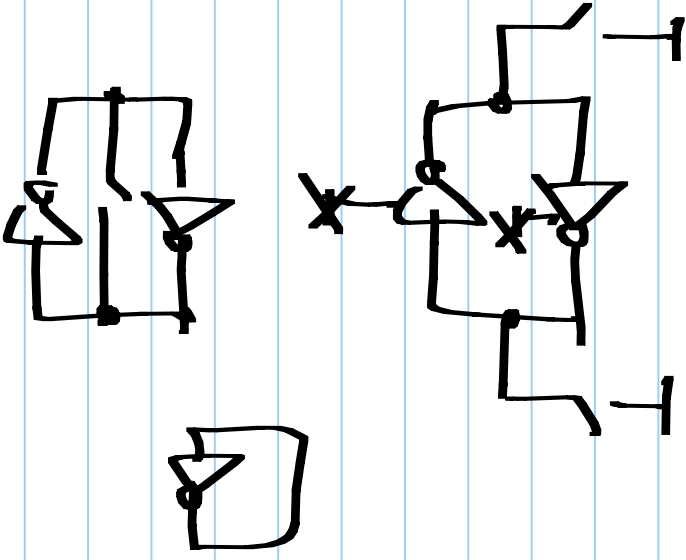
EE6322

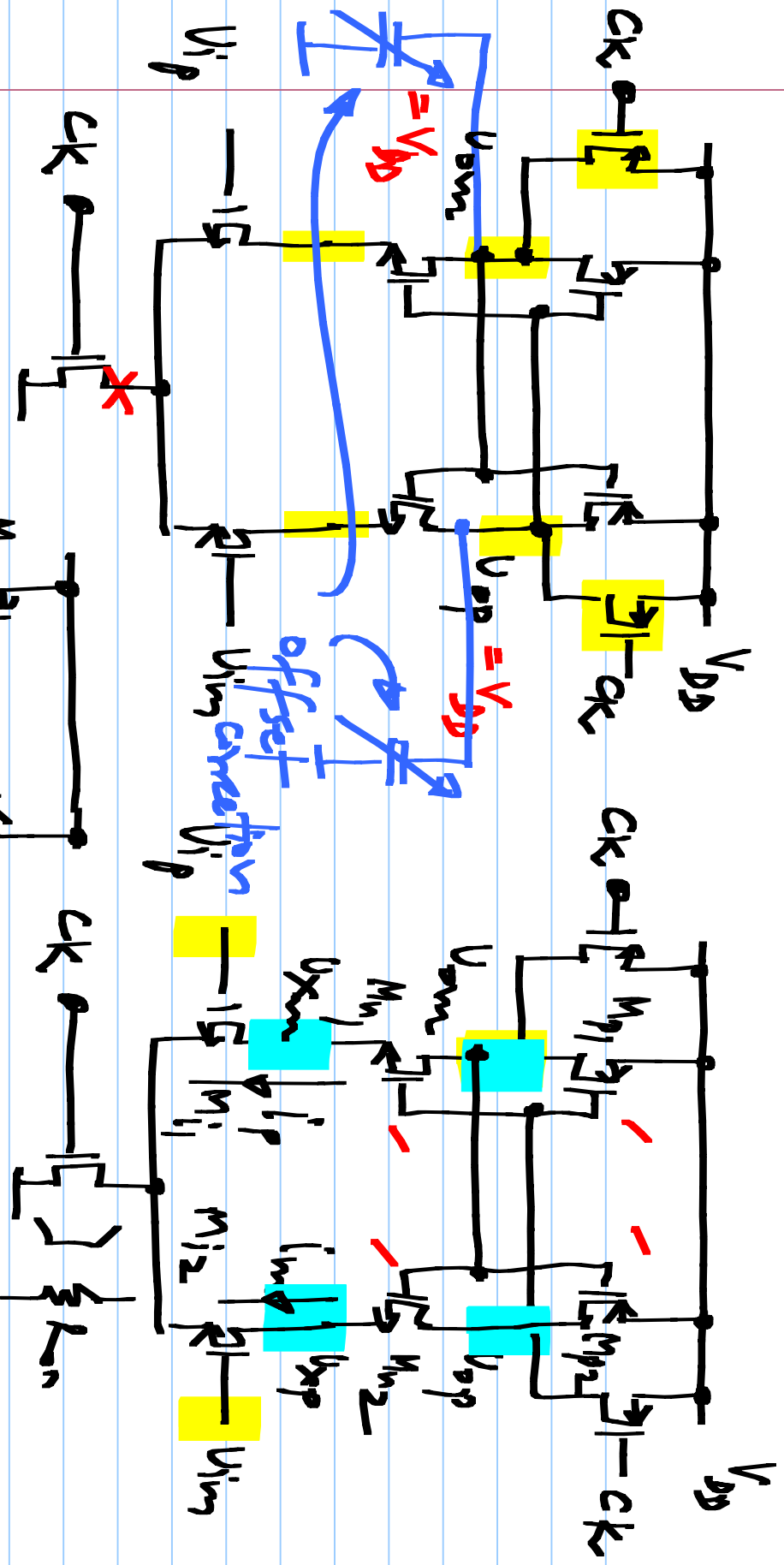
Decision latch

Amplification
Regeneration

24/4/2018

Strong arm latch:

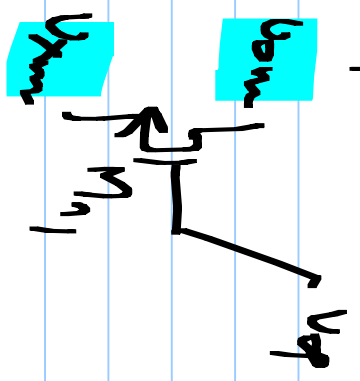


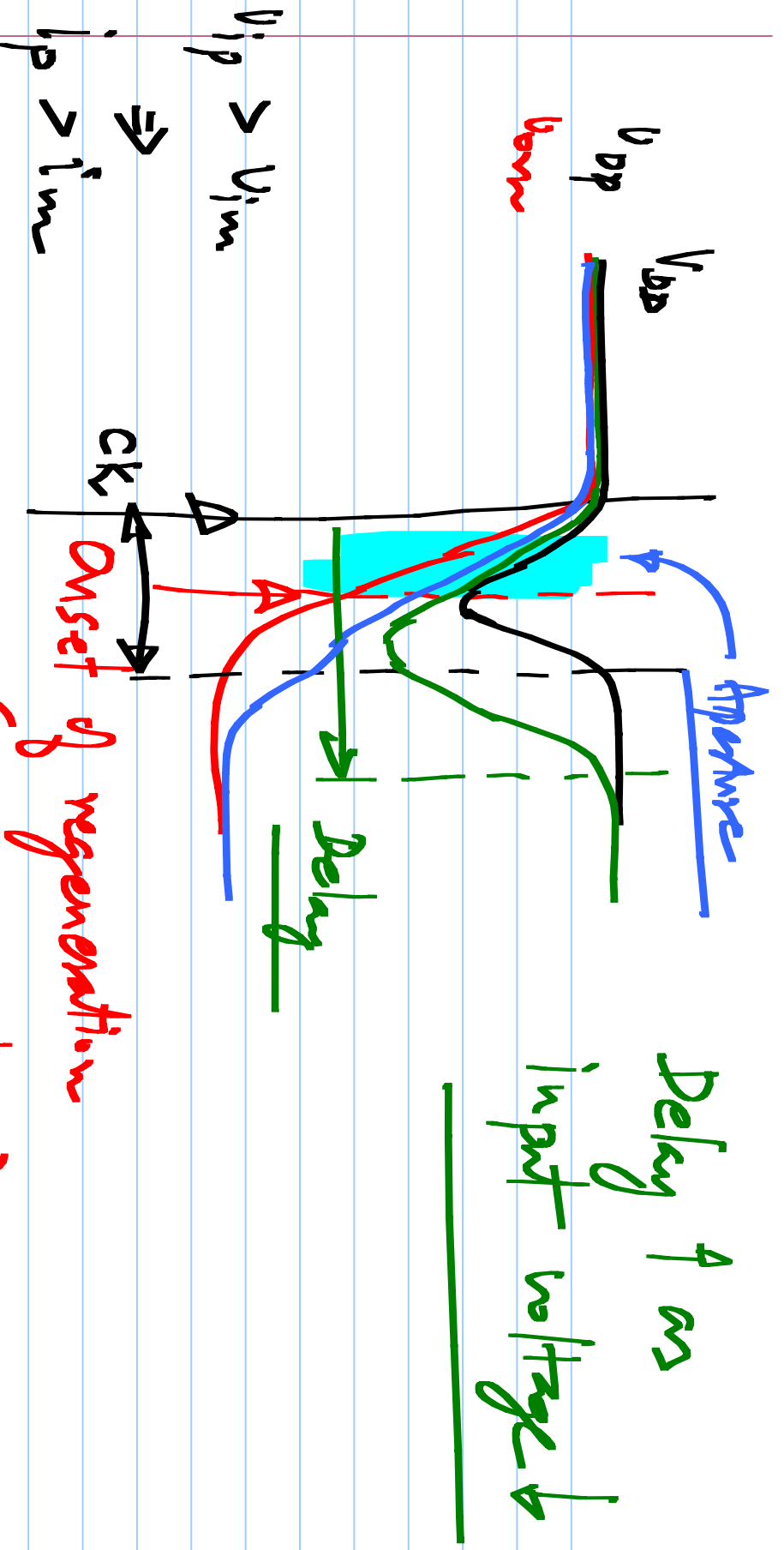


$CK=0$

Reset

$CK=1$





v_{om}, v_{im} fall more rapidly than v_{op}, v_{ip}

(Sampling Instant)

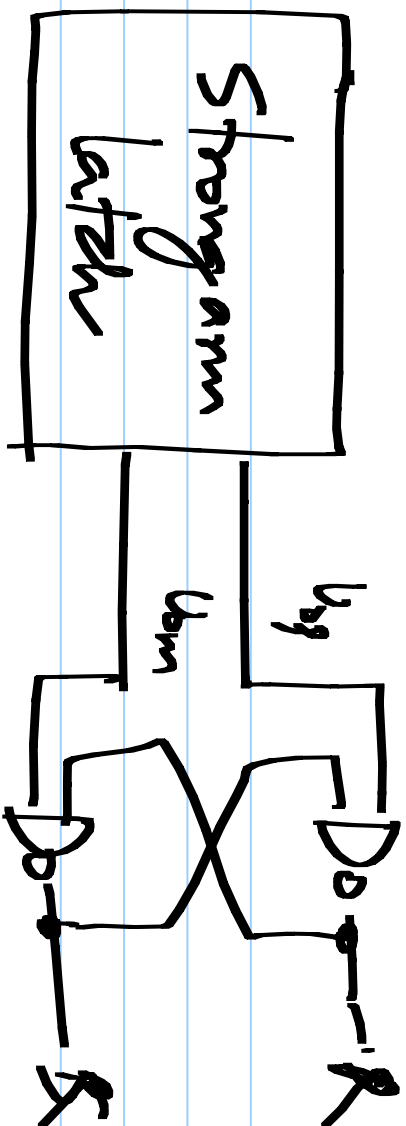
Latch parameters

Sampling aperture

delay (depends on input amplitude)

offset ← Transistor mismatch

Parasitic cap. mismatch
(dynamic offset)



$$U_{gp} = \overline{U_{bm}} = V_{Dp} \quad c_k = 0$$

$$U_{op} = \overline{U_{bm}} = S_{gn} (U_p - U_{Dn}) = c_k R = 1$$

