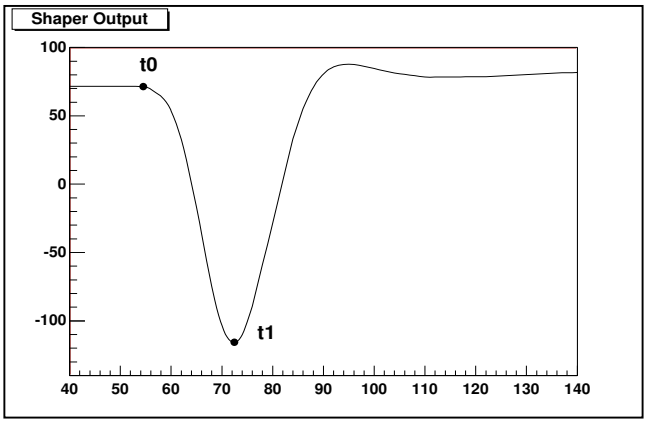
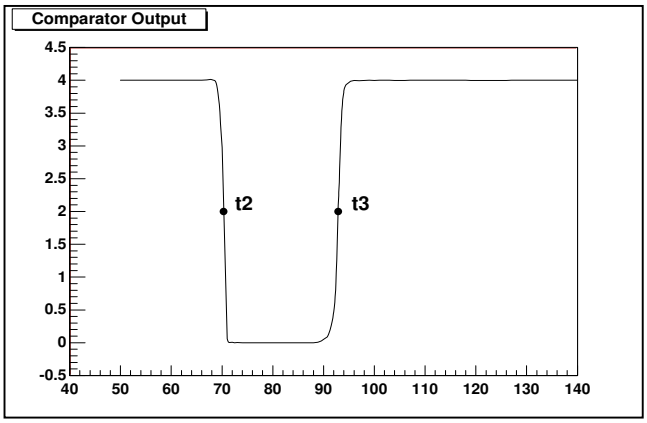
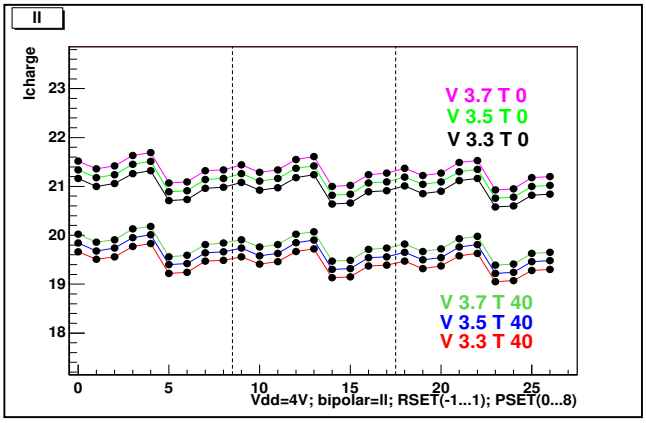
Parametric simulation of the ABCD FE with TRIM DAC's (ABCD2T)

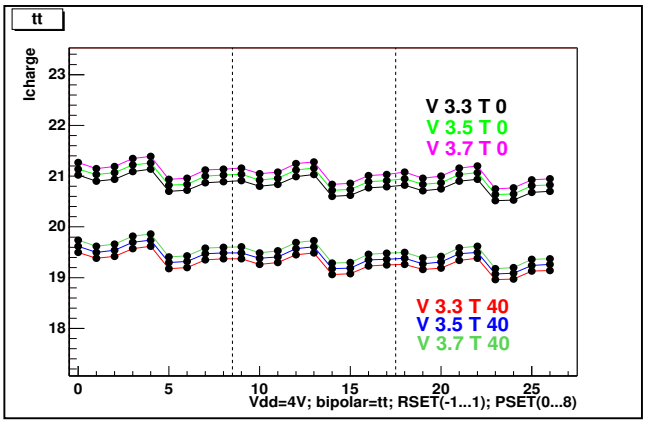
Definition of the peaking time (PkTim), DELAY and WIDTH

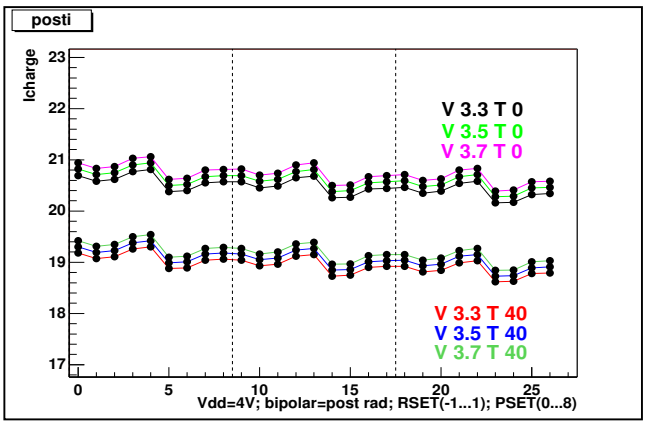


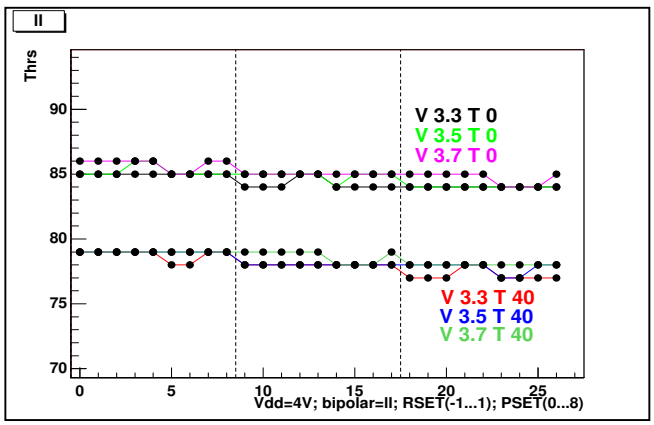


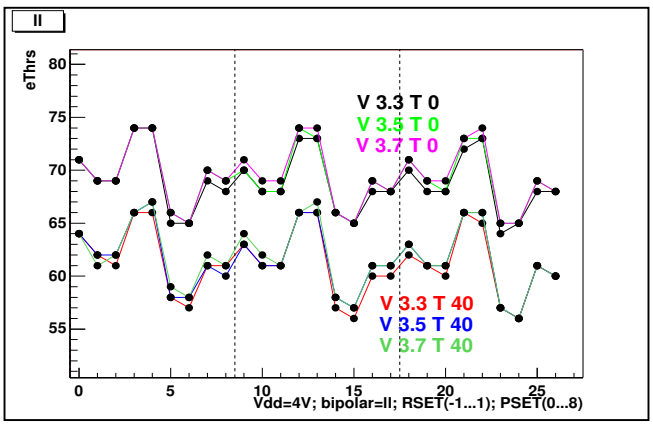
PkTim = t1 - t0
DELAY = t2 - t0
WIDTH = t3 - t2

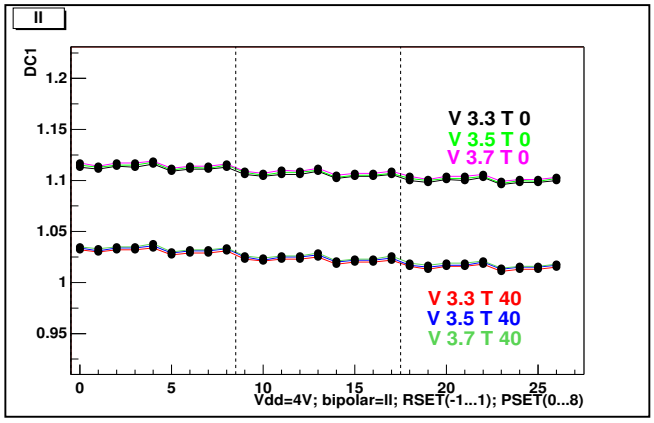

ll
Icharge
V 3.7 T 0
V 3.5 T 0
V 3.3 T 0
V 3.7 T 40
V 3.5 T 40
V 3.3 T 40
Vdd=4V; bipolar=ll; RSET(-1...1); PSET(0...8)

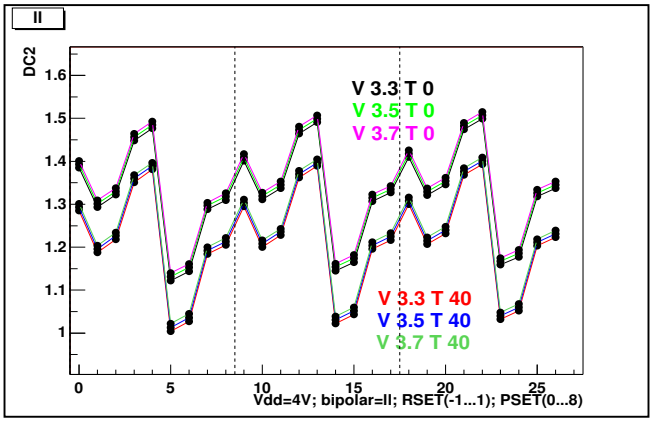

tt
Icharge
V 3.3 T 0
V 3.5 T 0
V 3.7 T 0
V 3.3 T 40
V 3.5 T 40
V 3.7 T 40
Vdd=4V; bipolar=tt; RSET(-1...1); PSET(0...8)

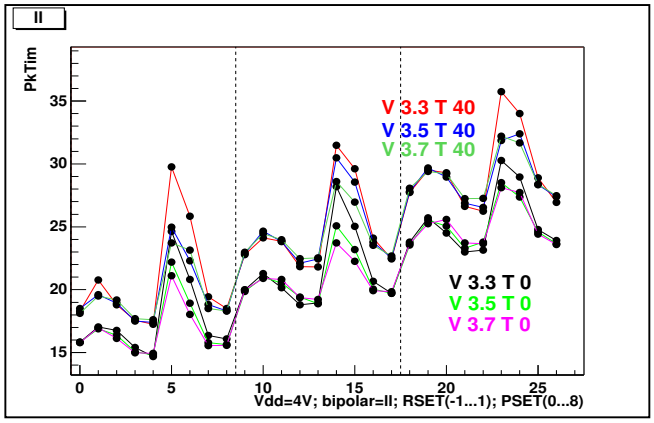

posti
Icharge
V 3.3 T 0
V 3.5 T 0
V 3.7 T 0
V 3.3 T 40
V 3.5 T 40
V 3.7 T 40
Vdd=4V; bipolar=post rad; RSET(-1...1); PSET(0...8)

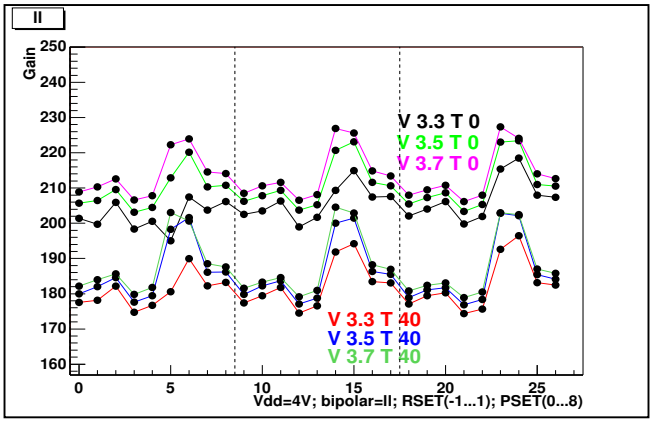

II
Thrs
V 3.3 T 0
V 3.5 T 0
V 3.7 T 0
V 3.3 T 40
V 3.5 T 40
V 3.7 T 40
Vdd=4V; bipolar=II; RSET(-1...1); PSET(0...8)

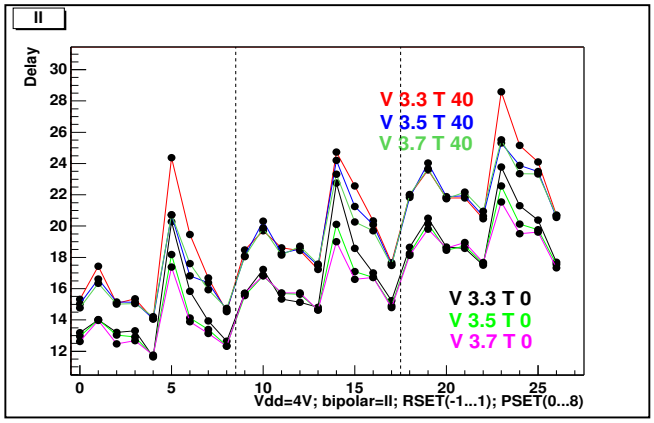

II
eThrs
V 3.3 T 0
V 3.5 T 0
V 3.7 T 0
V 3.3 T 40
V 3.5 T 40
V 3.7 T 40
Vdd=4V; bipolar=II; RSET(-1...1); PSET(0...8)

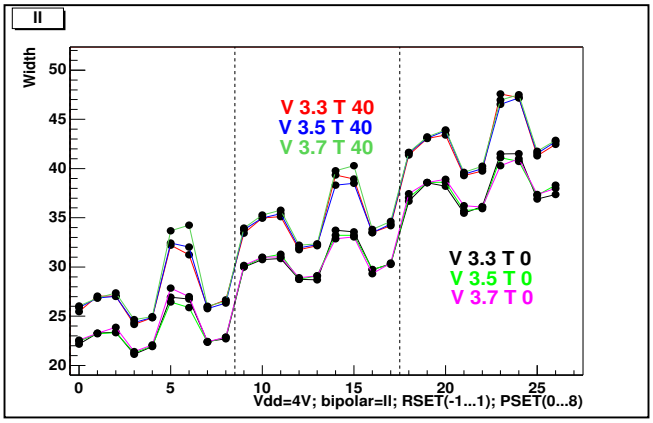

II
DC1
V 3.3 T 0
V 3.5 T 0
V 3.7 T 0
V 3.3 T 40
V 3.5 T 40
V 3.7 T 40
Vdd=4V; bipolar=II; RSET(-1...1); PSET(0...8)

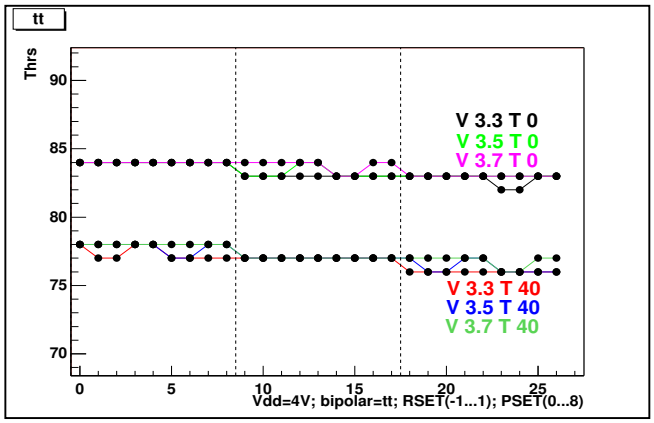

II
DC2
V 3.3 T 0
V 3.5 T 0
V 3.7 T 0
V 3.3 T 40
V 3.5 T 40
V 3.7 T 40
Vdd=4V; bipolar=II; RSET(-1...1); PSET(0...8)

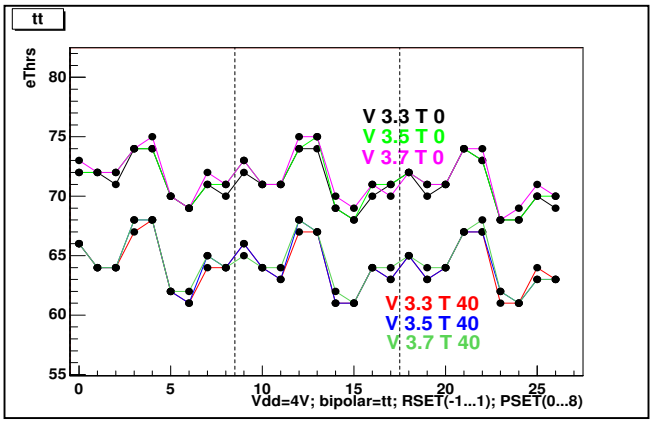

II
PkTim
V 3.3 T 40
V 3.5 T 40
V 3.7 T 40
V 3.3 T 0
V 3.5 T 0
V 3.7 T 0
Vdd=4V; bipolar=II; RSET(-1...1); PSET(0...8)

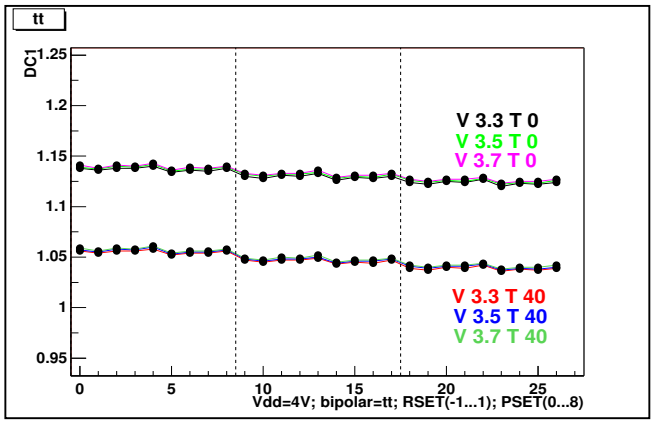

II
Gain
V 3.3 T 0
V 3.5 T 0
V 3.7 T 0
V 3.3 T 40
V 3.5 T 40
V 3.7 T 40
Vdd=4V; bipolar=II; RSET(-1...1); PSET(0...8)

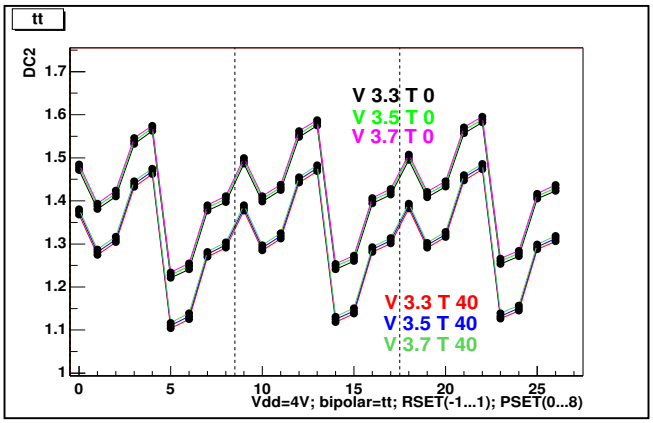

II
Delay
V 3.3 T 40
V 3.5 T 40
V 3.7 T 40
V 3.3 T 0
V 3.5 T 0
V 3.7 T 0
Vdd=4V; bipolar=II; RSET(-1...1); PSET(0...8)

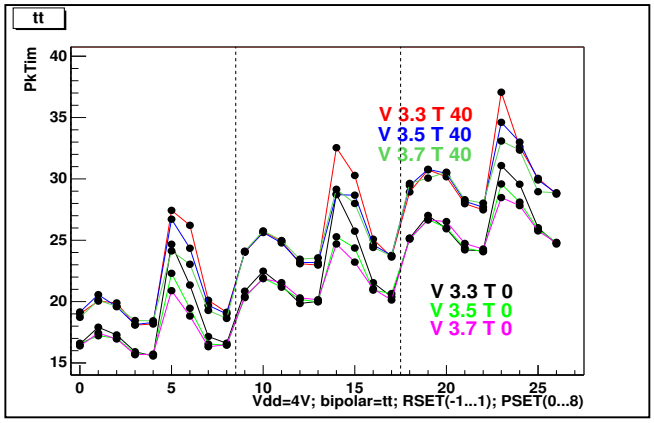

II
Width
V 3.3 T 40
V 3.5 T 40
V 3.7 T 40
V 3.3 T 0
V 3.5 T 0
V 3.7 T 0
Vdd=4V; bipolar=II; RSET(-1...1); PSET(0...8)

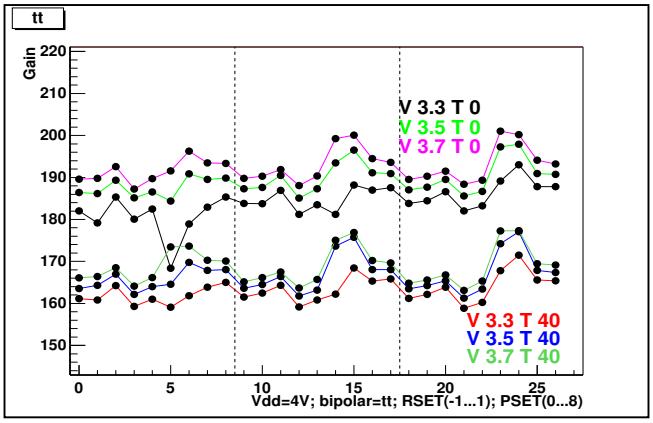

tt
Thrs
V 3.3 T 0
V 3.5 T 0
V 3.7 T 0
V 3.3 T 40
V 3.5 T 40
V 3.7 T 40
Vdd=4V; bipolar=tt; RSET(-1...1); PSET(0...8)

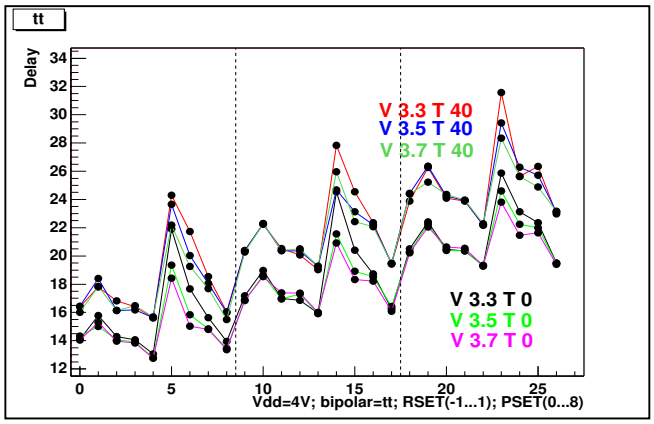

tt
eThrs
V 3.3 T 0
V 3.5 T 0
V 3.7 T 0
V 3.3 T 40
V 3.5 T 40
V 3.7 T 40
Vdd=4V; bipolar=tt; RSET(-1...1); PSET(0...8)

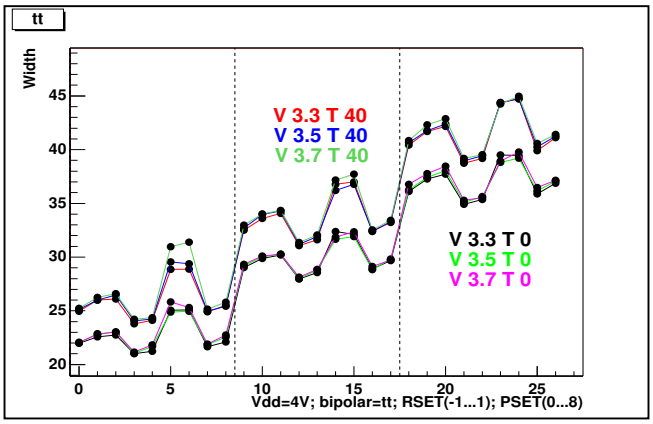

tt
DC1
V 3.3 T 0
V 3.5 T 0
V 3.7 T 0
V 3.3 T 40
V 3.5 T 40
V 3.7 T 40
Vdd=4V; bipolar=tt; RSET(-1...1); PSET(0...8)

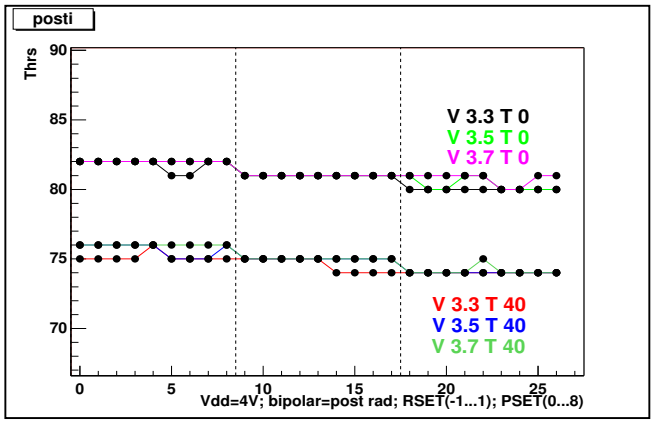

tt
DC2
V 3.3 T 0
V 3.5 T 0
V 3.7 T 0
V 3.3 T 40
V 3.5 T 40
V 3.7 T 40
Vdd=4V; bipolar=tt; RSET(-1...1); PSET(0...8)

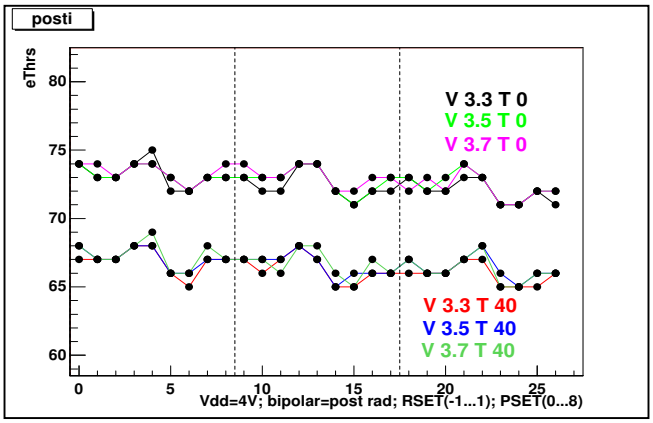

tt
PkTim
V 3.3 T 40
V 3.5 T 40
V 3.7 T 40
V 3.3 T 0
V 3.5 T 0
V 3.7 T 0
Vdd=4V; bipolar=tt; RSET(-1...1); PSET(0...8)

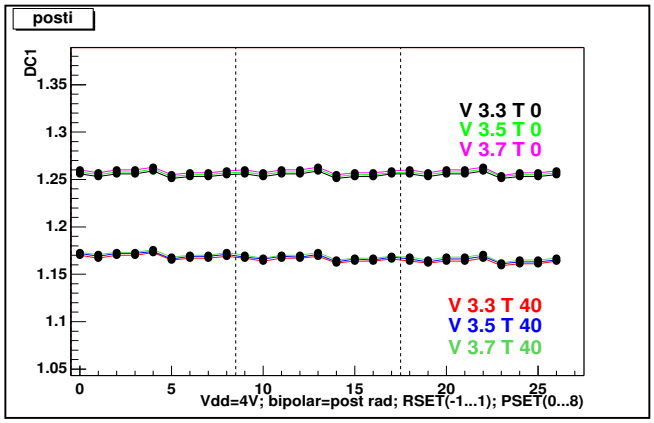

tt
Gain
V 3.3 T 0
V 3.5 T 0
V 3.7 T 0
V 3.3 T 40
V 3.5 T 40
V 3.7 T 40
Vdd=4V; bipolar=tt; RSET(-1...1); PSET(0...8)

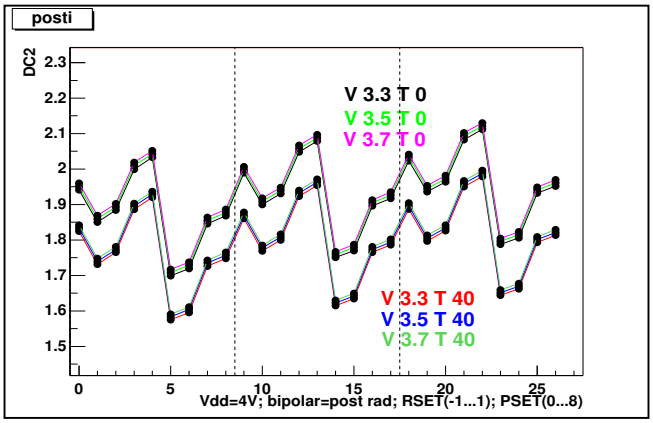

tt
Delay
V 3.3 T 40
V 3.5 T 40
V 3.7 T 40
V 3.3 T 0
V 3.5 T 0
V 3.7 T 0
Vdd=4V; bipolar=tt; RSET(-1...1); PSET(0...8)

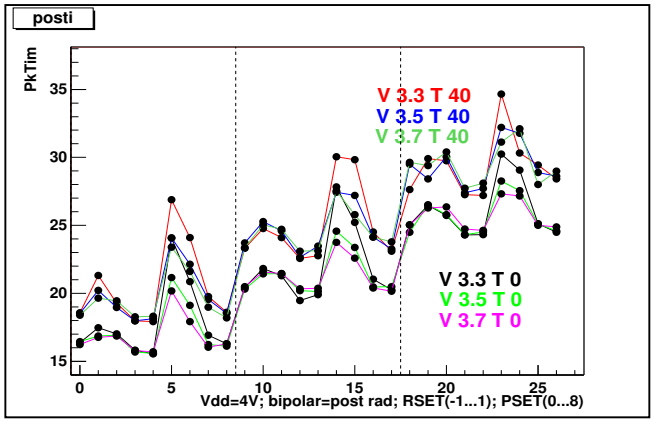

tt
Width
V 3.3 T 40
V 3.5 T 40
V 3.7 T 40
V 3.3 T 0
V 3.5 T 0
V 3.7 T 0
Vdd=4V; bipolar=tt; RSET(-1...1); PSET(0...8)

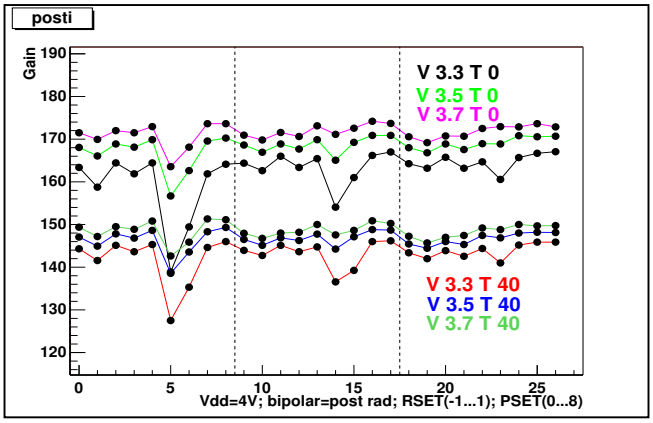

posti
Thrs
V 3.3 T 0
V 3.5 T 0
V 3.7 T 0
V 3.3 T 40
V 3.5 T 40
V 3.7 T 40
Vdd=4V; bipolar=post rad; RSET(-1...1); PSET(0...8)

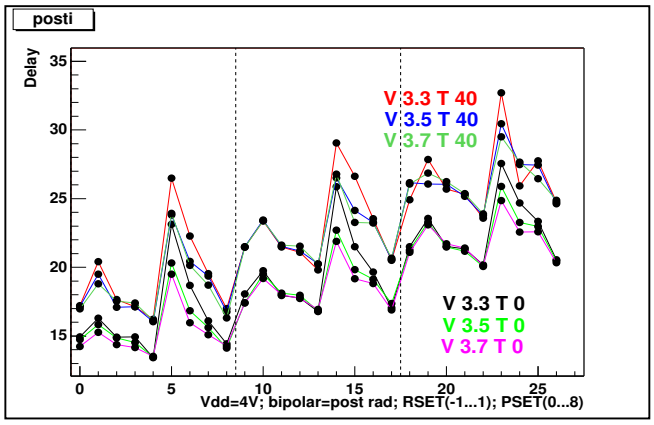

posti
eThrs
V 3.3 T 0
V 3.5 T 0
V 3.7 T 0
V 3.3 T 40
V 3.5 T 40
V 3.7 T 40
Vdd=4V; bipolar=post rad; RSET(-1...1); PSET(0...8)

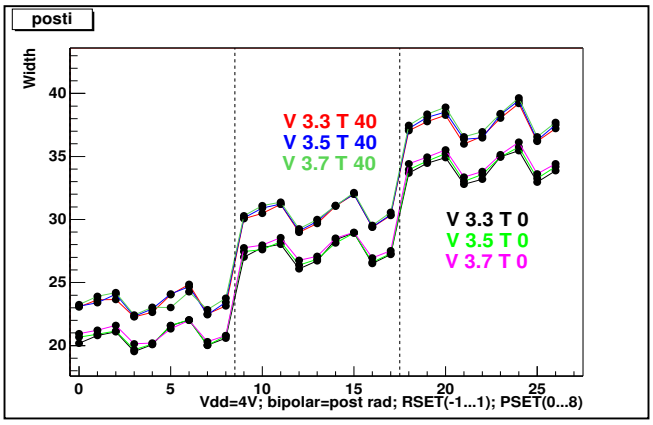

posti
DC1
V 3.3 T 0
V 3.5 T 0
V 3.7 T 0
V 3.3 T 40
V 3.5 T 40
V 3.7 T 40
Vdd=4V; bipolar=post rad; RSET(-1...1); PSET(0...8)

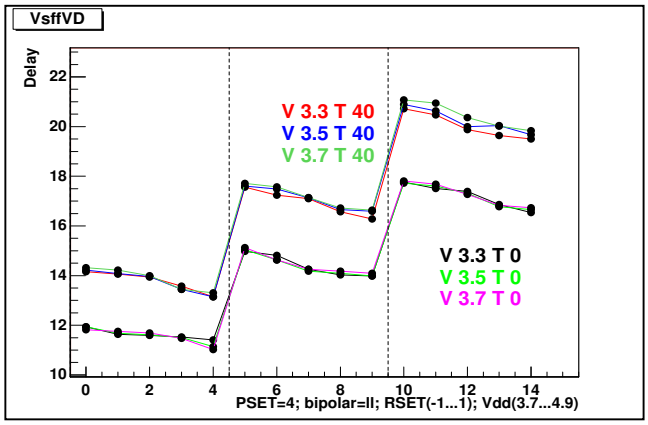

posti
DC2
V 3.3 T 0
V 3.5 T 0
V 3.7 T 0
V 3.3 T 40
V 3.5 T 40
V 3.7 T 40
Vdd=4V; bipolar=post rad; RSET(-1...1); PSET(0...8)

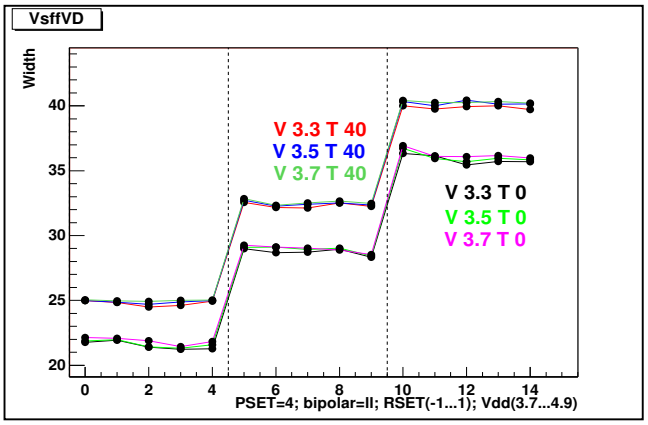

posti
PkTim
V 3.3 T 40
V 3.5 T 40
V 3.7 T 40
V 3.3 T 0
V 3.5 T 0
V 3.7 T 0
Vdd=4V; bipolar=post rad; RSET(-1...1); PSET(0...8)

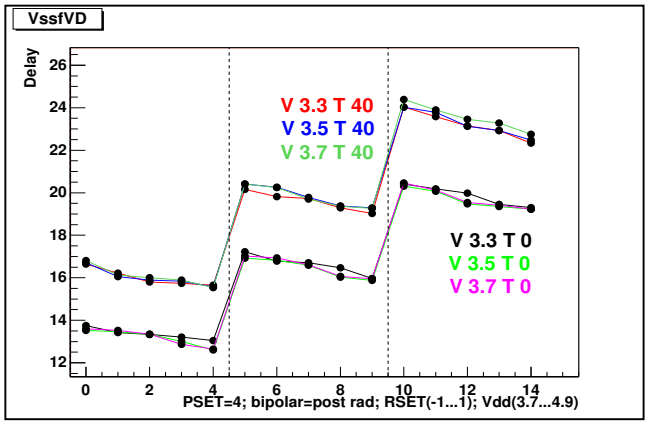

posti
Gain
V 3.3 T 0
V 3.5 T 0
V 3.7 T 0
V 3.3 T 40
V 3.5 T 40
V 3.7 T 40
Vdd=4V; bipolar=post rad; RSET(-1...1); PSET(0...8)

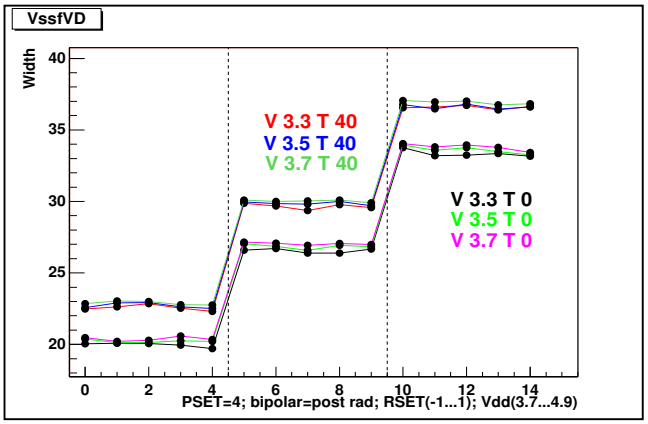

posti
Delay
V 3.3 T 40
V 3.5 T 40
V 3.7 T 40
V 3.3 T 0
V 3.5 T 0
V 3.7 T 0
Vdd=4V; bipolar=post rad; RSET(-1...1); PSET(0...8)

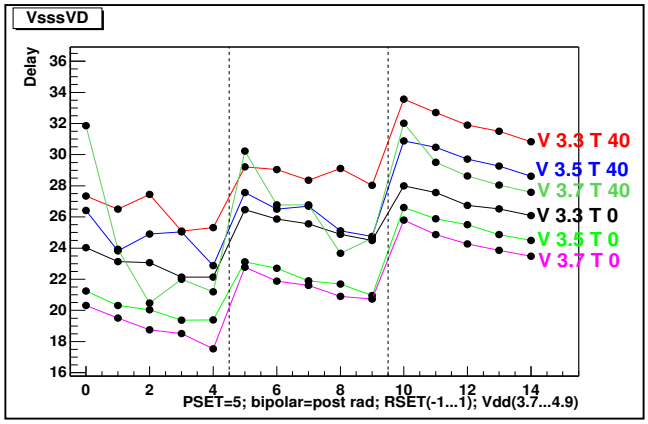

posti
Width
V 3.3 T 40
V 3.5 T 40
V 3.7 T 40
V 3.3 T 0
V 3.5 T 0
V 3.7 T 0
Vdd=4V; bipolar=post rad; RSET(-1...1); PSET(0...8)

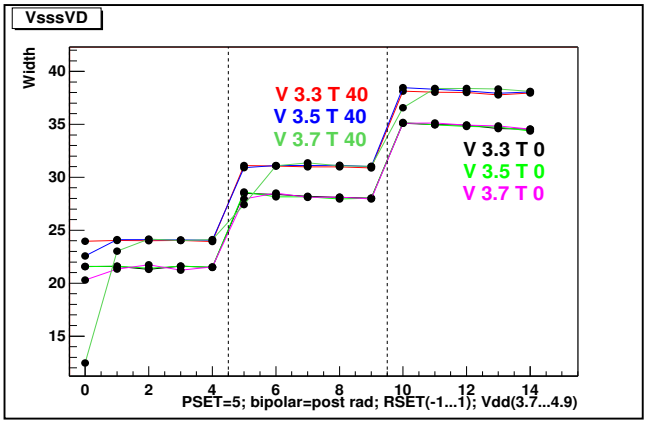

VsffVD
Delay
V 3.3 T 40
V 3.5 T 40
V 3.7 T 40
V 3.3 T 0
V 3.5 T 0
V 3.7 T 0
PSET=4; bipolar=II; RSET(-1...1); Vdd(3.7...4.9)

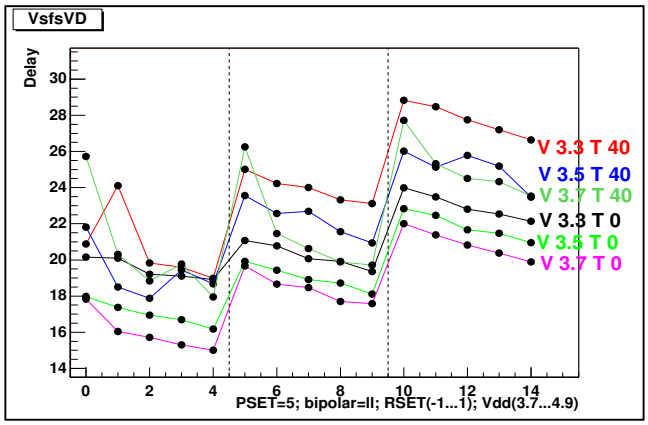

VsffVD
Width
V 3.3 T 40
V 3.5 T 40
V 3.7 T 40
V 3.3 T 0
V 3.5 T 0
V 3.7 T 0
PSET=4; bipolar=II; RSET(-1...1); Vdd(3.7...4.9)

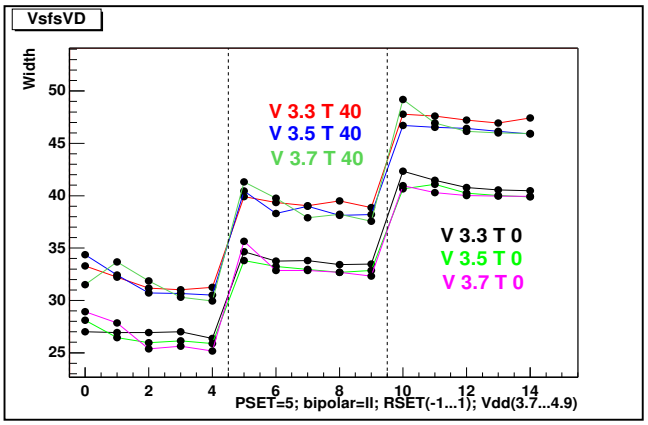

VssfVD
Delay
V 3.3 T 40
V 3.5 T 40
V 3.7 T 40
V 3.3 T 0
V 3.5 T 0
V 3.7 T 0
PSET=4; bipolar=post rad; RSET(-1...1); Vdd(3.7...4.9)


VssfVD
Width
V 3.3 T 40
V 3.5 T 40
V 3.7 T 40
V 3.3 T 0
V 3.5 T 0
V 3.7 T 0
PSET=4; bipolar=post rad; RSET(-1...1); Vdd(3.7...4.9)


VsssVD
Delay
V 3.3 T 40
V 3.5 T 40
V 3.7 T 40
V 3.3 T 0
V 3.5 T 0
V 3.7 T 0
PSET=5; bipolar=post rad; RSET(-1...1); Vdd(3.7...4.9)


VsssVD
Width
V 3.3 T 40
V 3.5 T 40
V 3.7 T 40
V 3.3 T 0
V 3.5 T 0
V 3.7 T 0
PSET=5; bipolar=post rad; RSET(-1...1); Vdd(3.7...4.9)


VsfsVD
Delay
V 3.3 T 40
V 3.5 T 40
V 3.7 T 40
V 3.3 T 0
V 3.5 T 0
V 3.7 T 0
PSET=5; bipolar=II; RSET(-1...1); Vdd(3.7...4.9)


VsfsVD
Width
V 3.3 T 40
V 3.5 T 40
V 3.7 T 40
V 3.3 T 0
V 3.5 T 0
V 3.7 T 0
PSET=5; bipolar=II; RSET(-1...1); Vdd(3.7...4.9)