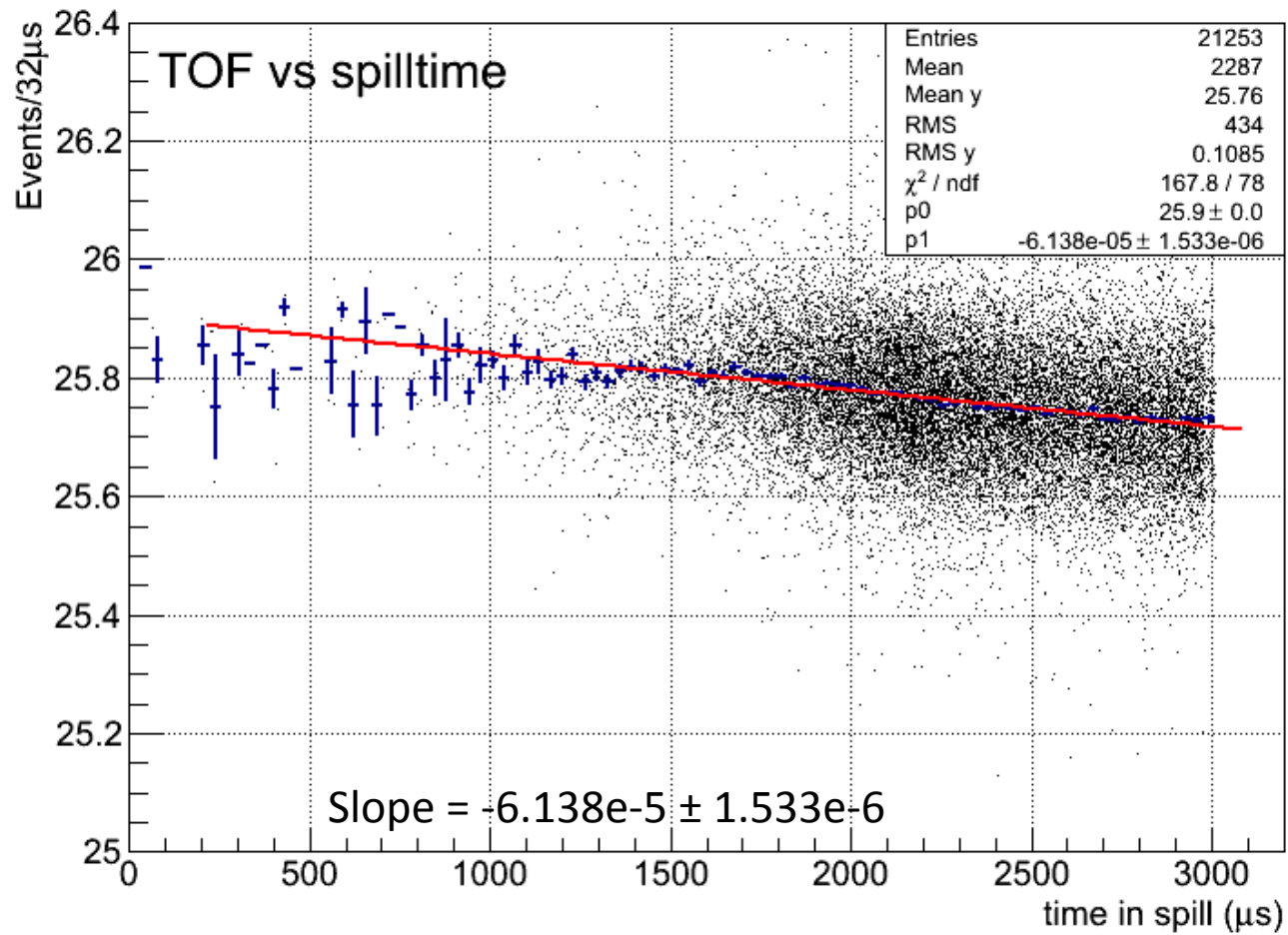
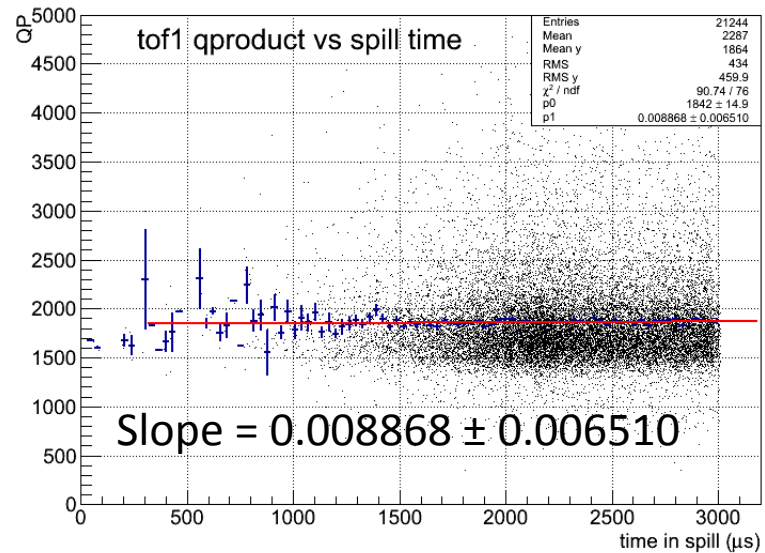
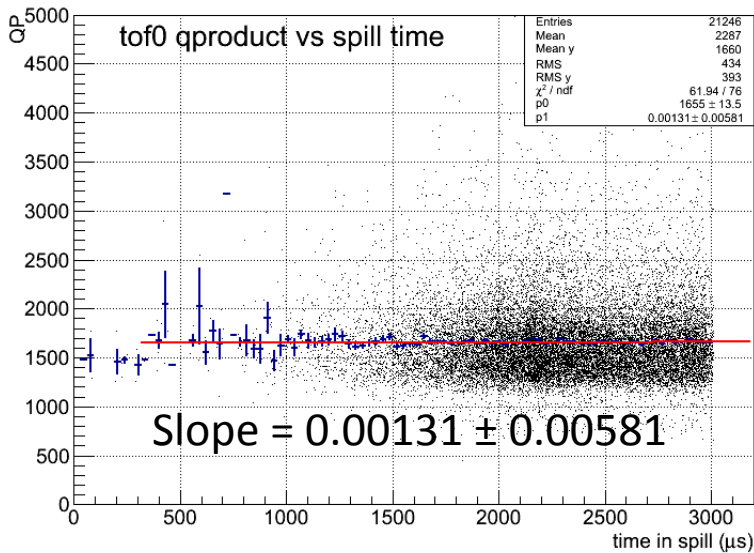
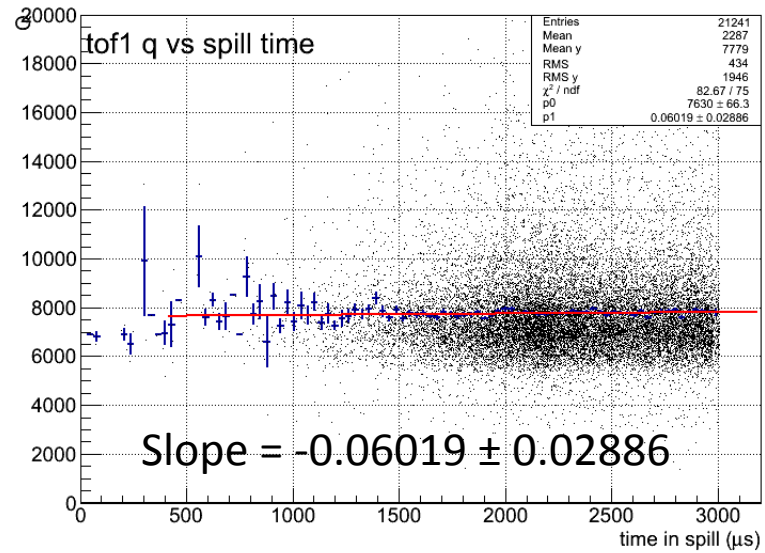
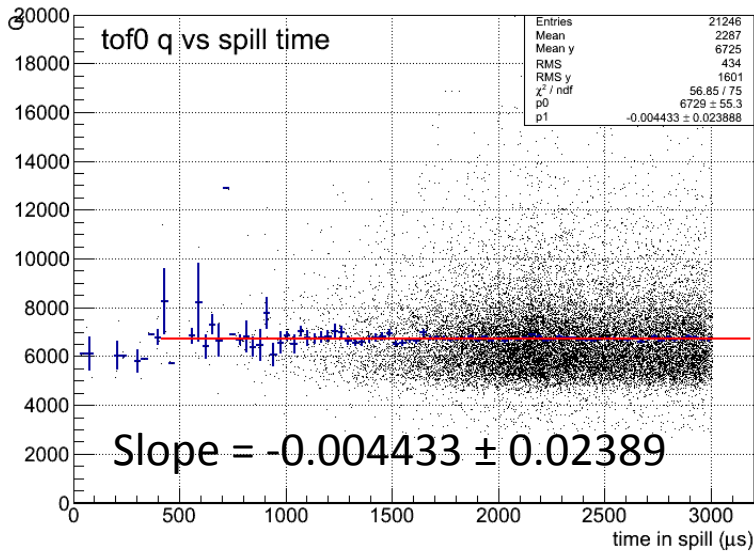


- Time of flight seems to depend on time within spill

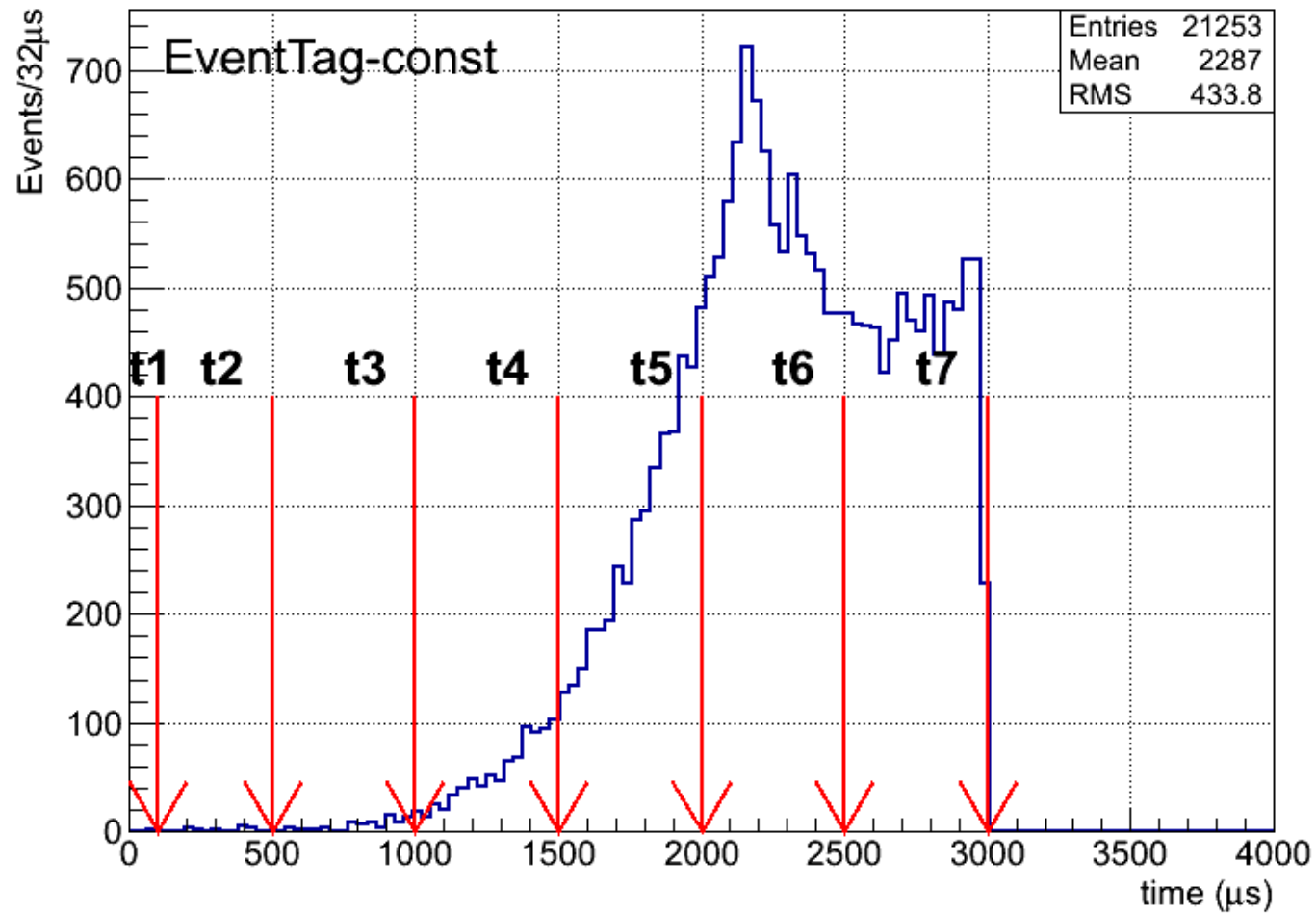


*But.....*

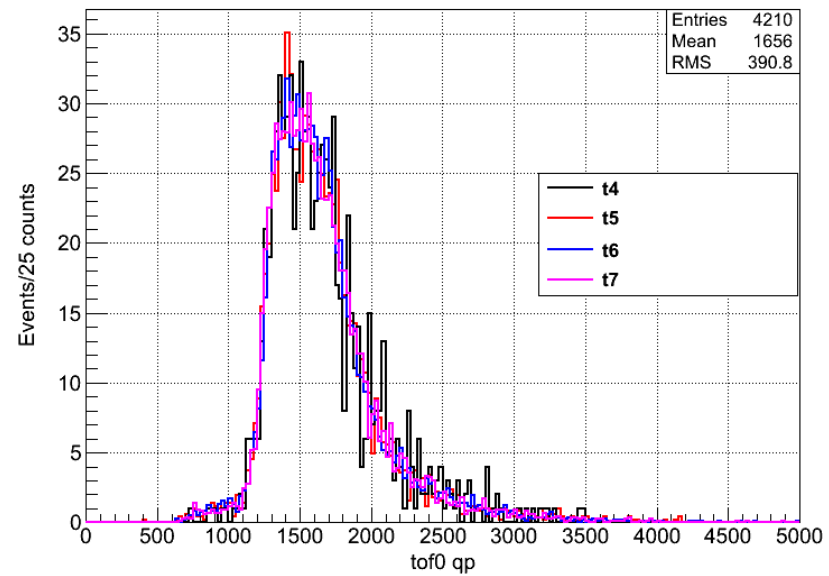
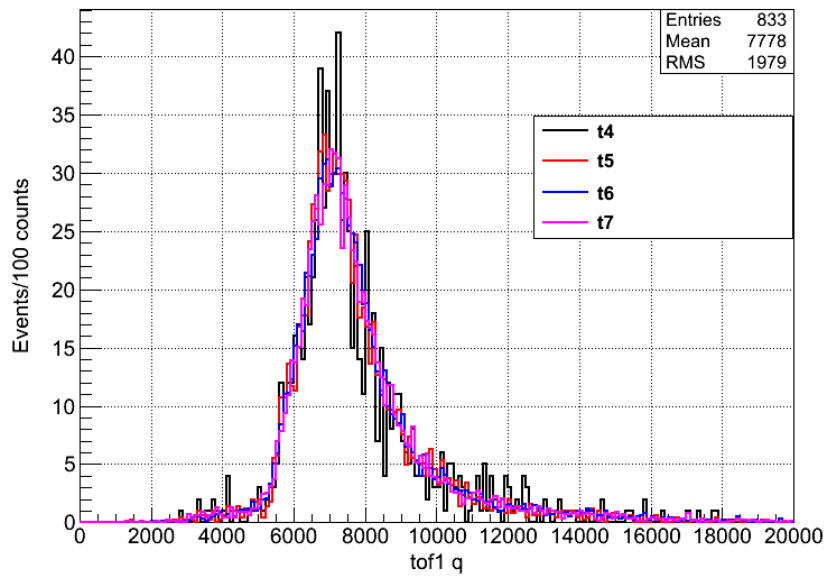
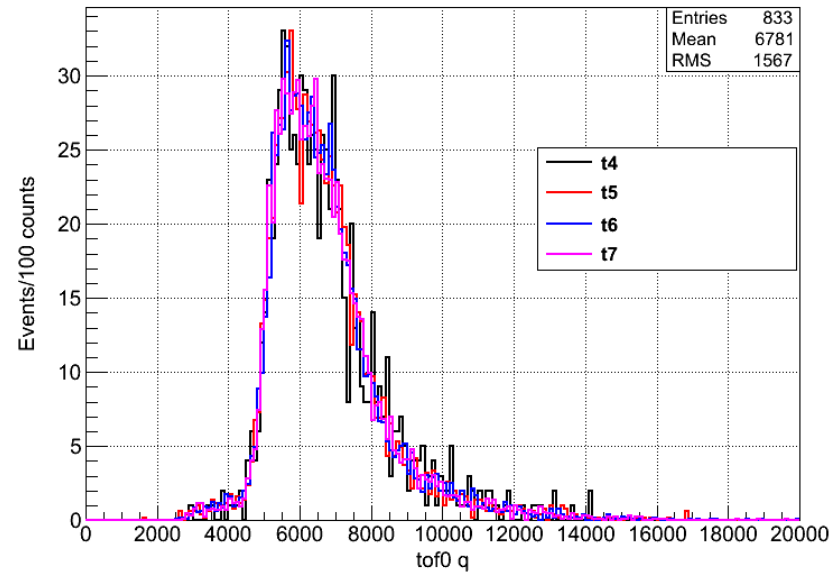
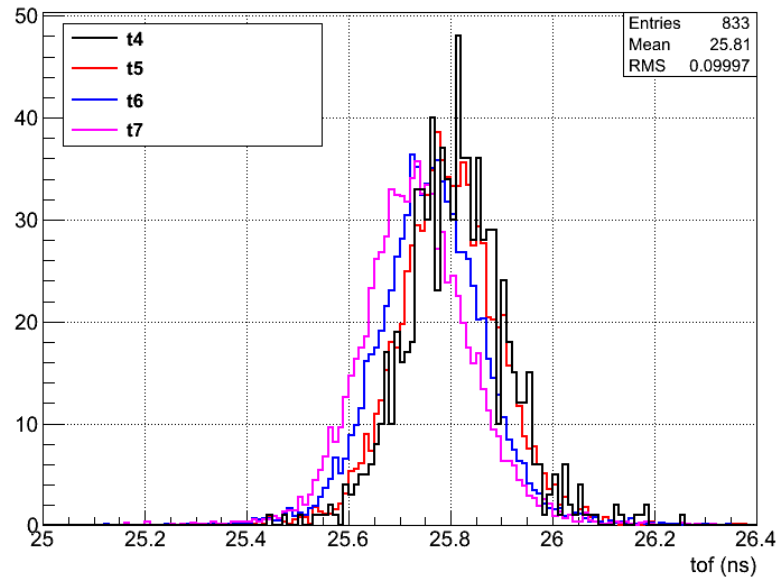
- Charge & charge product seem practically flat across the spill



- Selected different slices of the time within the spill



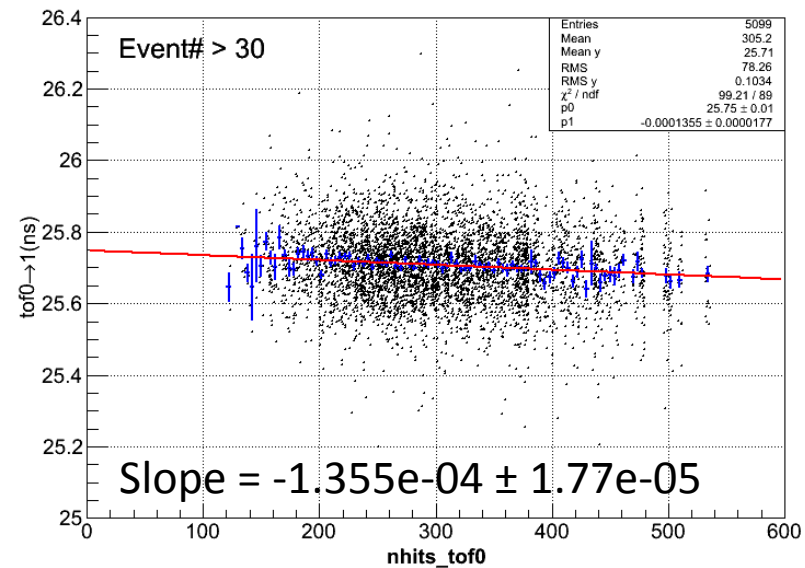
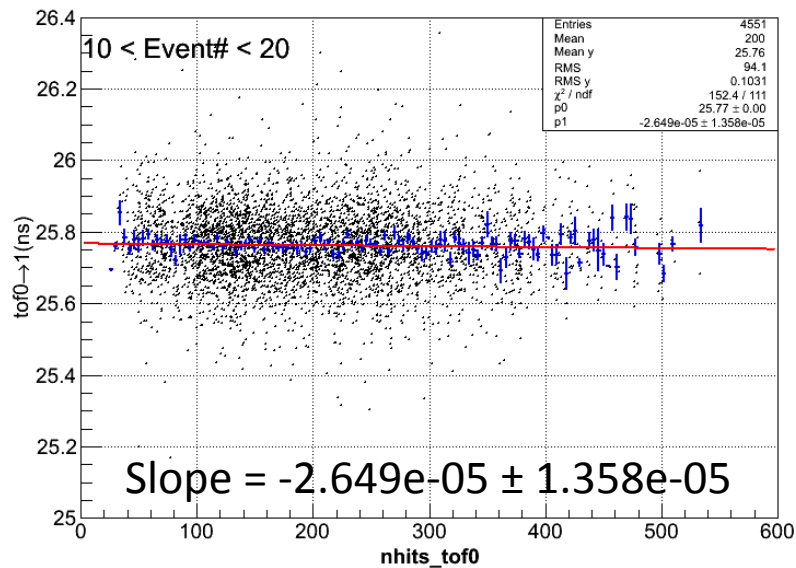
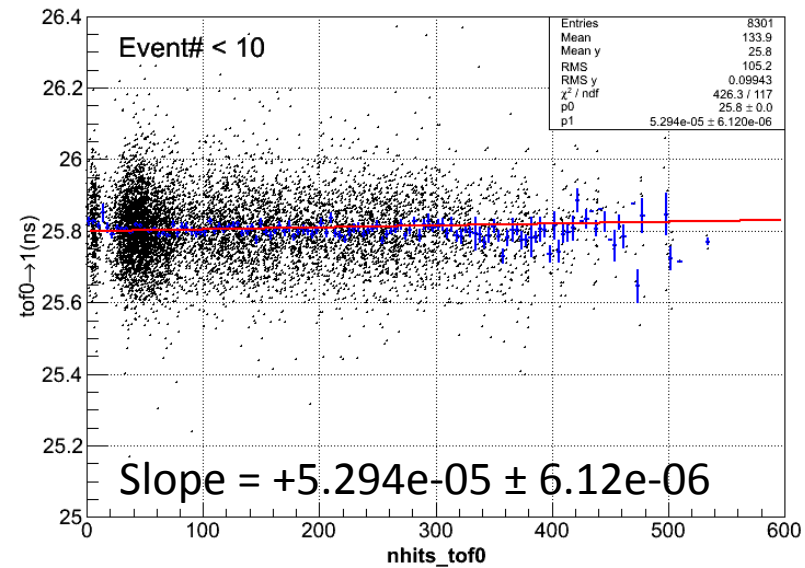
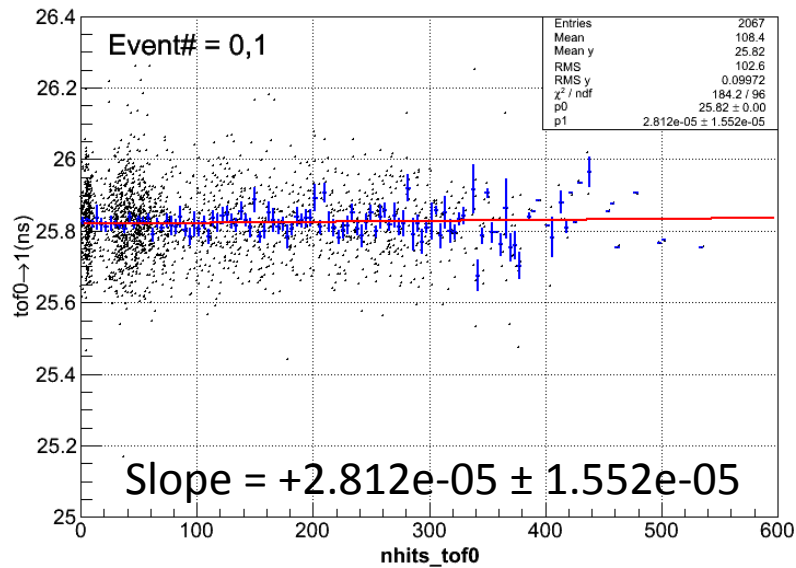
- ToF & Q for various slices of the time within the spill



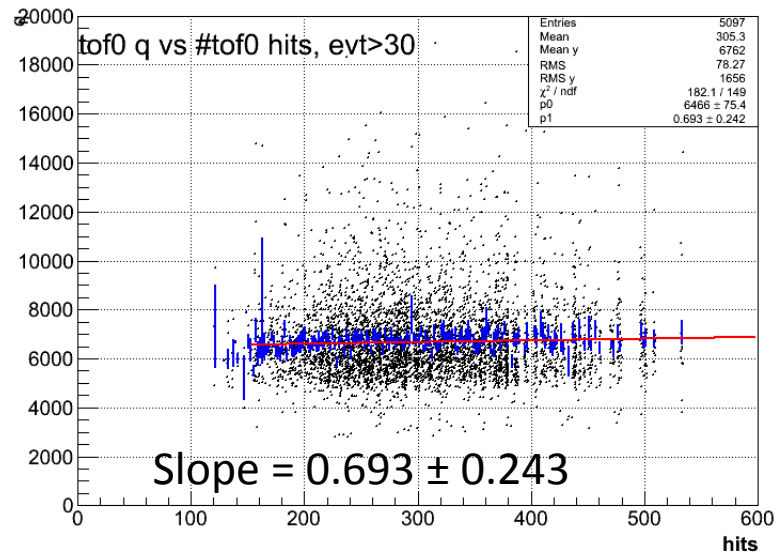
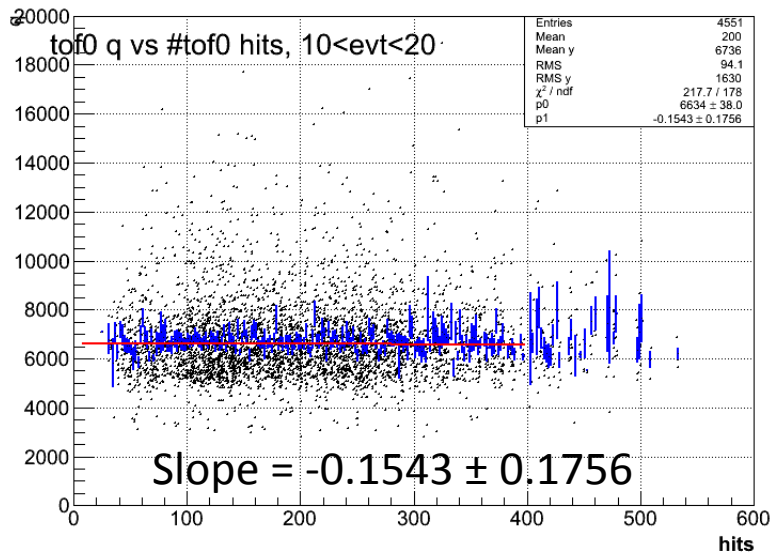
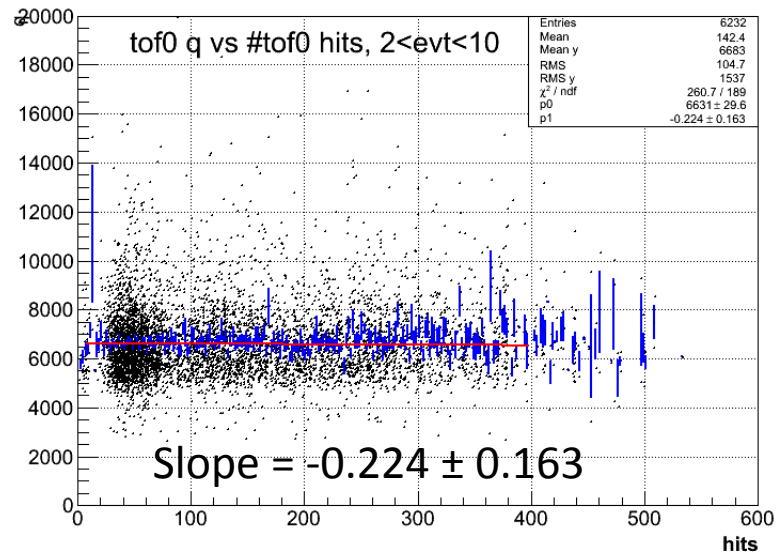
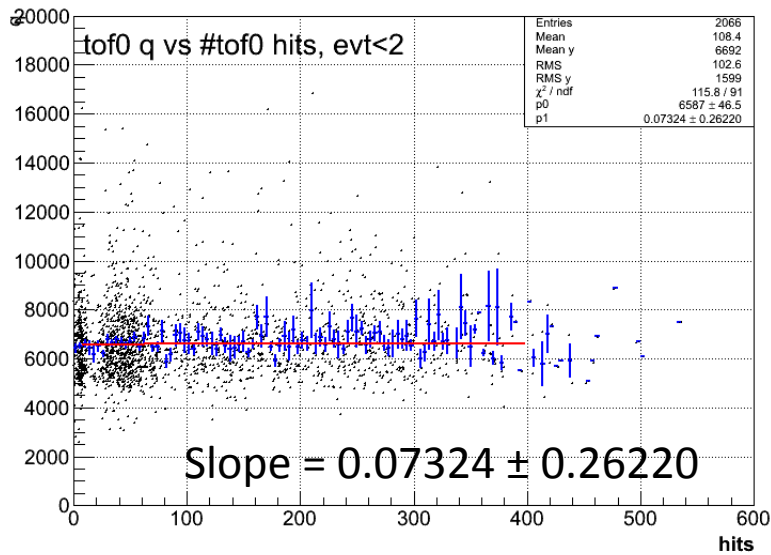
- Dependence on time within spill

Variable		Slope ( / $\mu\text{s}$ )
TOF		$-6.138\text{e-}5 \pm 1.533\text{e-}6$
Tof0 Q	Pos	$-4.433\text{e-}3 \pm 2.389\text{e-}2$
	Neg	$1.770\text{e-}1 \pm 9.50\text{e-}2$
Tof1 Q		
Tof1 Q	Pos	$-6.019\text{e-}2 \pm 2.886\text{e-}2$
	Neg	$-4.894\text{e-}2 \pm 1.245\text{e-}1$
Tof0 QP		$1.310\text{e-}3 \pm 5.810\text{e-}3$
Tof1 QP		$8.868\text{e-}3 \pm 6.510\text{e-}3$

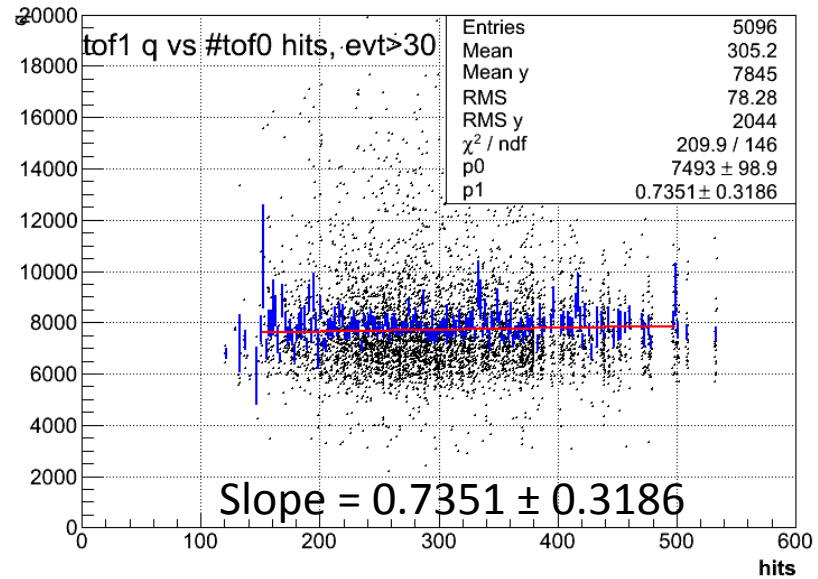
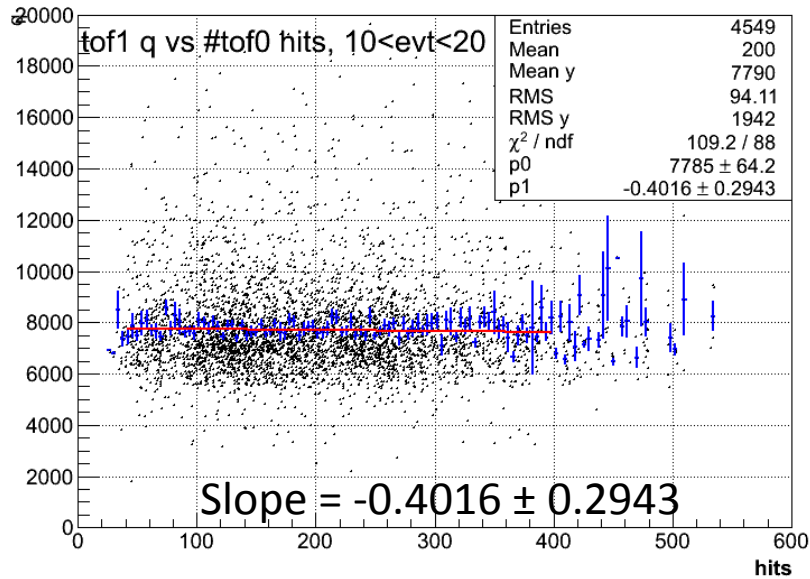
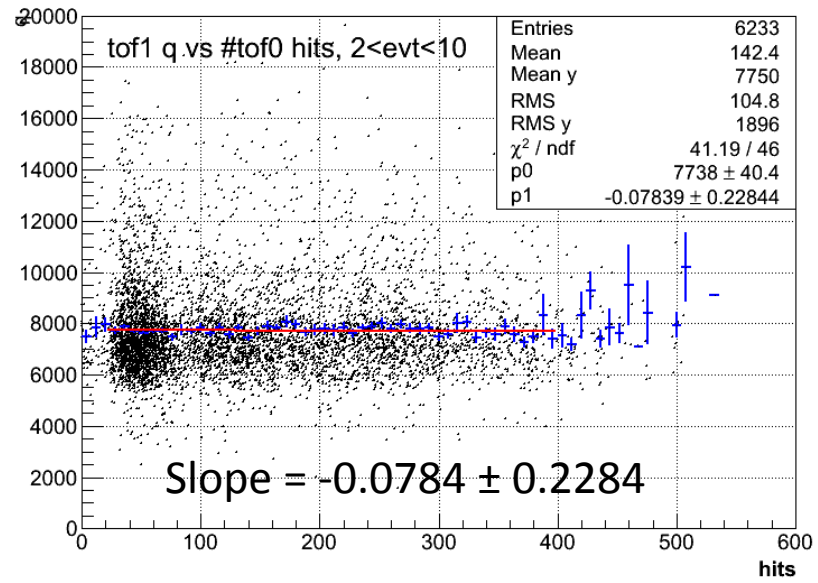
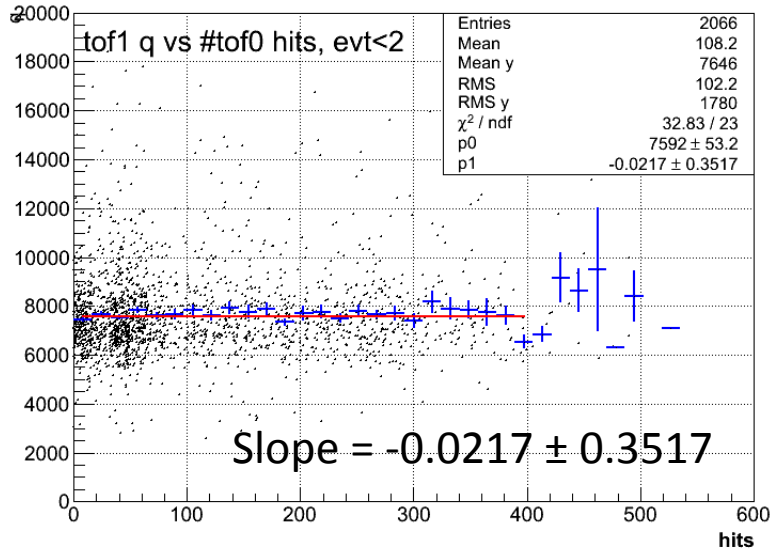
- Now slicing up by event number...



- TOF0 Q vs #tof0 hits for different event slices

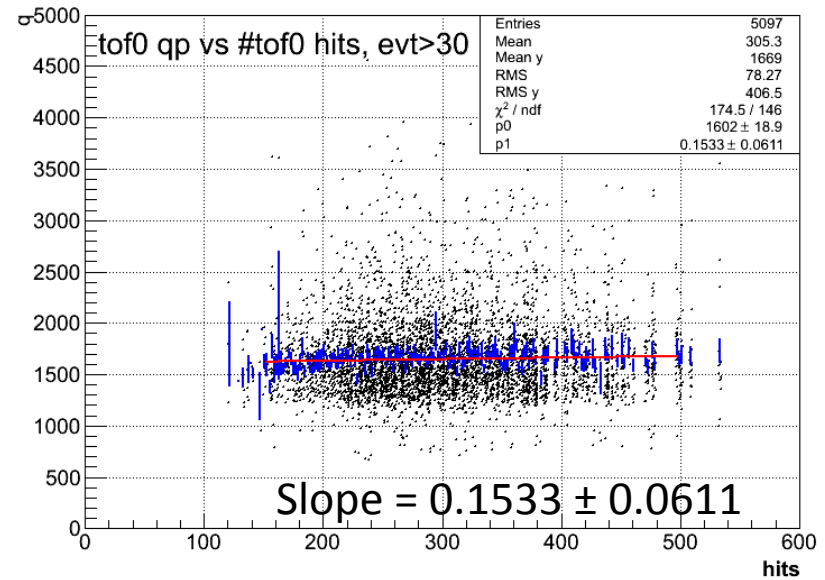
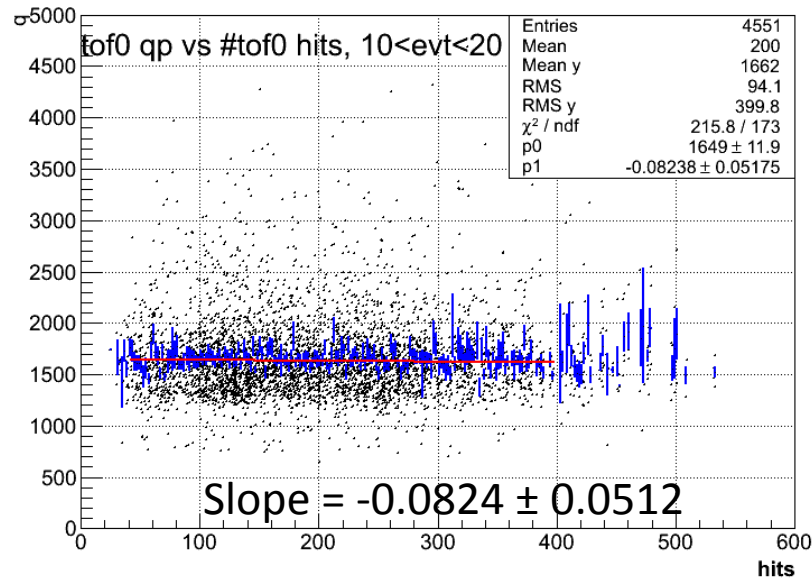
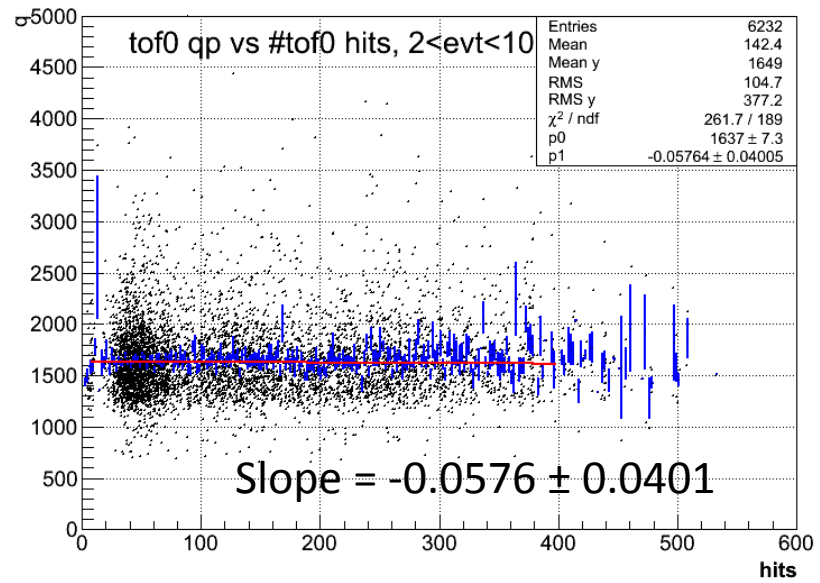
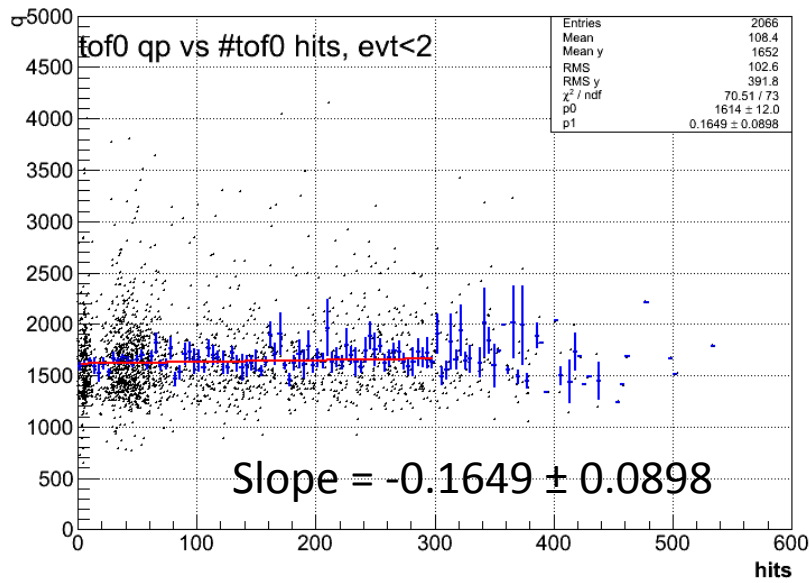


- TOF1 Q

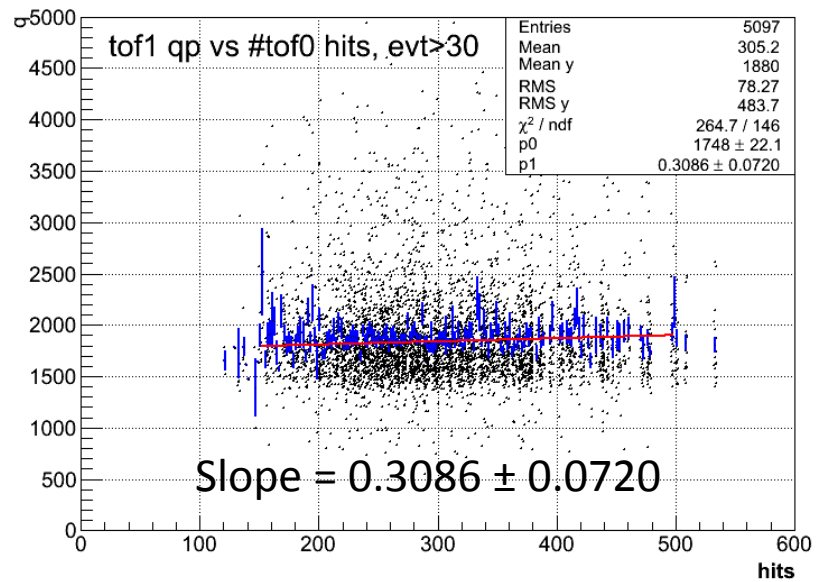
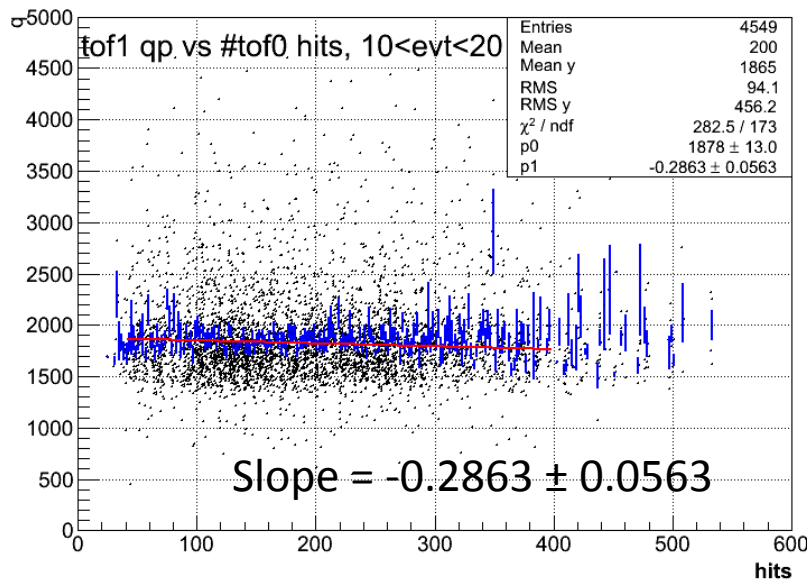
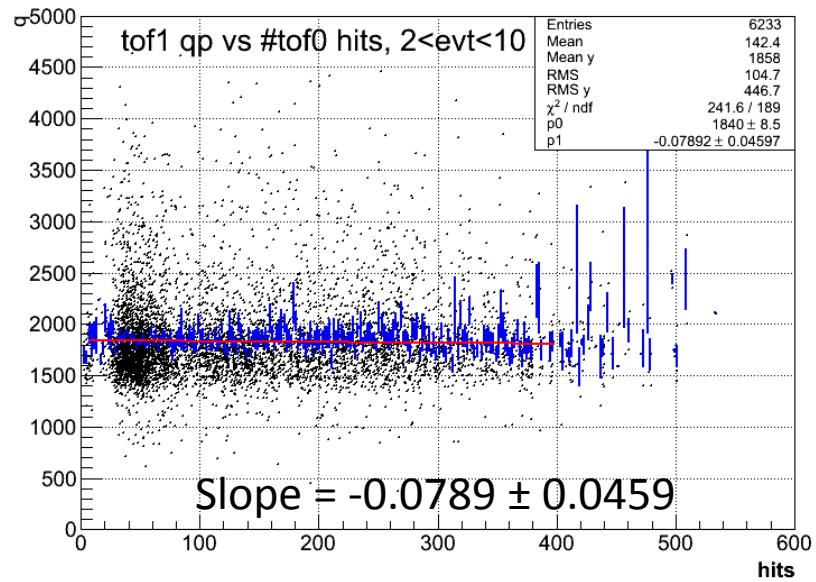
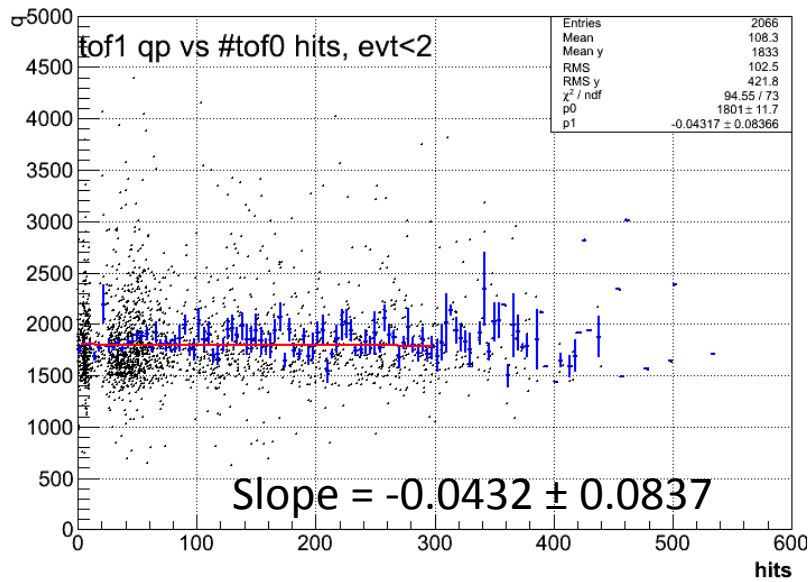




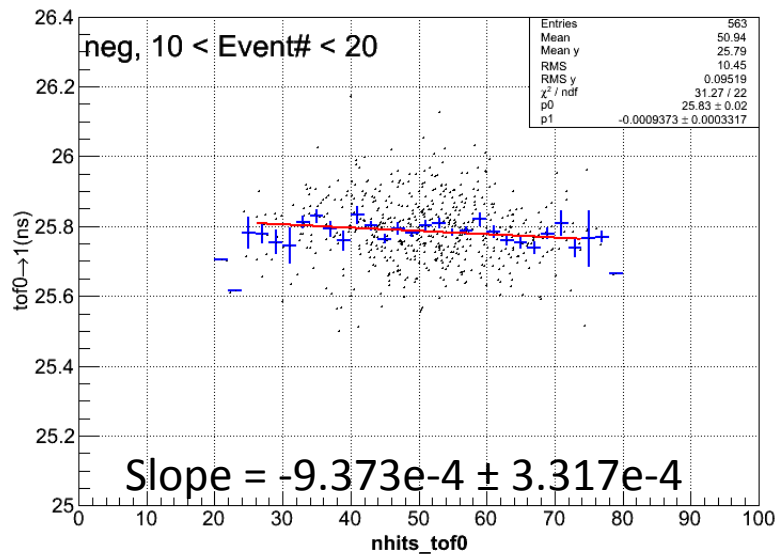
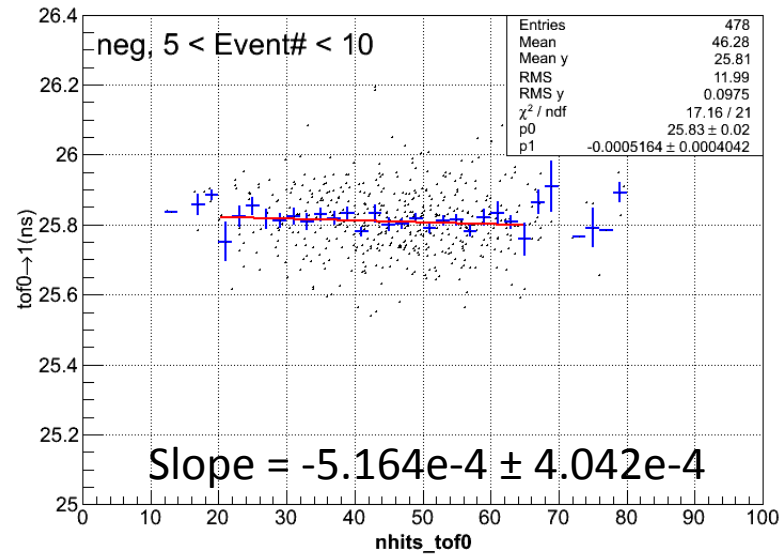
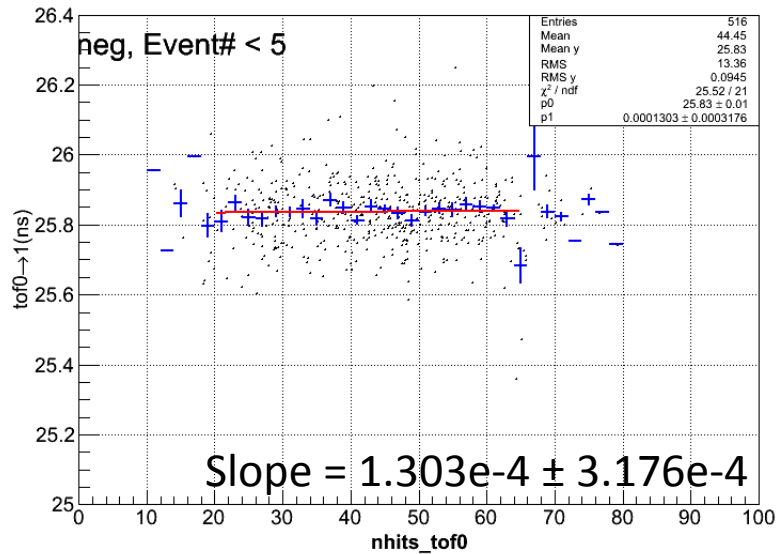
- TOF0 Qproduct



- TOF1 Qproduct



- For e- from negative data

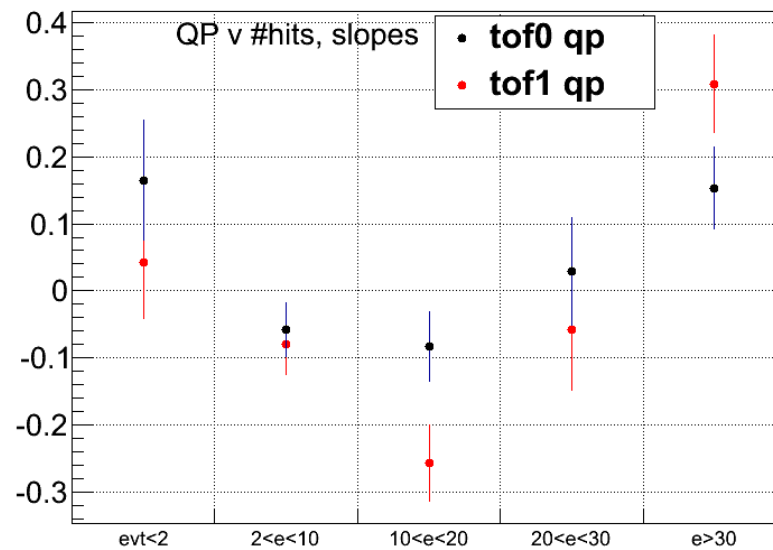
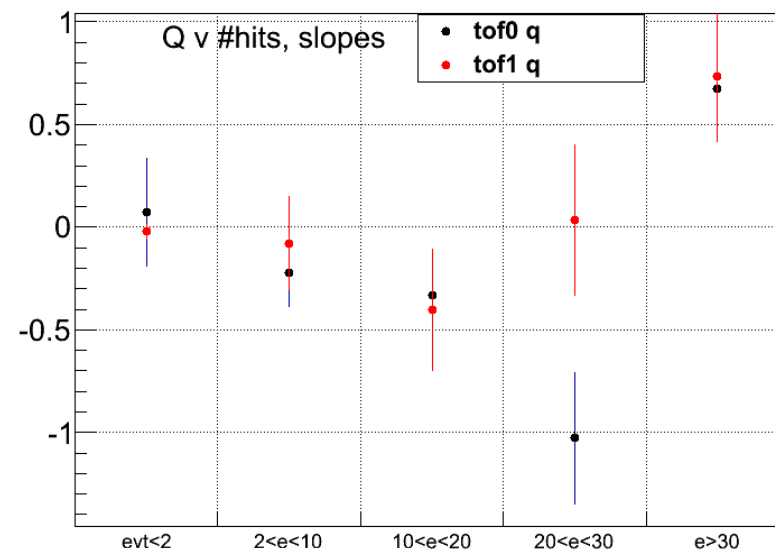
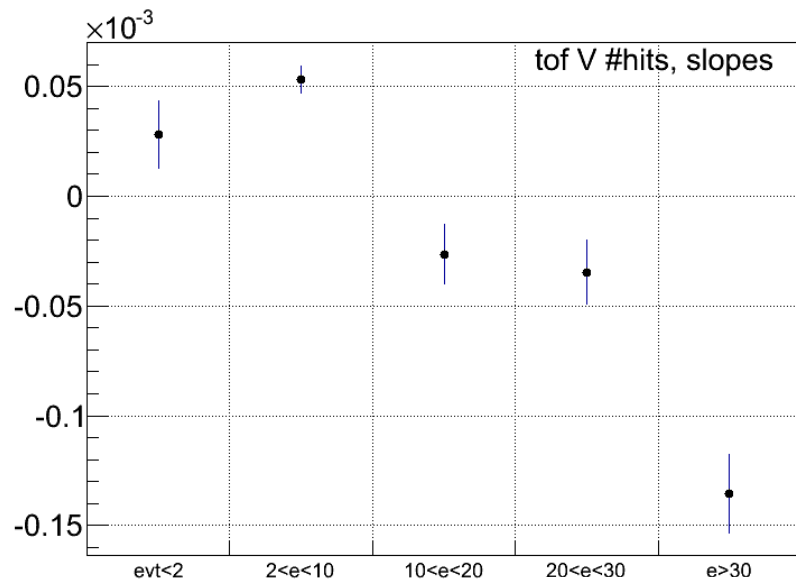


- For negatives, very poor statistics beyond event ~20.

- TOF, Charge, ChargeProduct vs #tof0 hits for various event slices

	<b>Tof (ns/hit)</b>	<b>Tof0 Q (counts/hit)</b>	<b>Tof1 Q (counts/hit)</b>	<b>Tof0 QP (counts/hit)</b>	<b>Tof1 QP (counts/hit)</b>
evt < 2	$2.812\text{e-}05 \pm 1.552\text{e-}05$	$0.0732 \pm 0.2622$	$-0.0217 \pm 0.3517$	$0.1649 \pm 0.0898$	$0.0432 \pm 0.0837$
$2 \leq \text{evt} < 10$	$5.294\text{e-}05 \pm 6.120\text{e-}06$	$-0.2240 \pm 0.1630$	$-0.0784 \pm 0.2284$	$-0.0576 \pm 0.0401$	$-0.0789 \pm 0.0459$
$10 \leq \text{evt} < 20$	$-2.649\text{e-}05 \pm 1.358\text{e-}05$	$-0.3322 \pm 0.2098$	$-0.4016 \pm 0.2943$	$-0.0824 \pm 0.0518$	$-0.2563 \pm 0.0563$
$20 \leq \text{evt} < 30$	$-3.454\text{e-}05 \pm 1.459\text{e-}05$	$-1.027 \pm 0.319$	$0.0360 \pm 0.3669$	$0.0285 \pm 0.0803$	$-0.0577 \pm 0.0911$
evt $\geq 30$	$-1.355\text{e-}04 \pm 1.770\text{e-}05$	$0.6751 \pm 0.2483$	$0.7351 \pm 0.3186$	$0.1533 \pm 0.0611$	$0.3086 \pm 0.0721$

- TOF, Charge, ChargeProduct vs #tof0 hits for various event slices



## Pos vs Neg

- TOF vs #tof0 hits:
  - Pos data:  $-2.263e-4 \pm 1e-7$
  - Neg data:  $-6.667e-4 \pm 1.921e-4$
- TOF vs time within spill:
  - Pos data:  $-6.138e-5 \pm 1.533e-6$
  - Neg data:  $-3.549e-4 \pm 4.365e-6$

