
Status on ECL trigger

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TRG/DAQ workshop
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To-do list

- Firmware (FAM)
 - correction of TC timing bias
 - TC E and T measurements for 2 continuous signal pulses
 - Take into account injection veto for noise monitoring
- Firmware (ETM)
 - Event timing logic from most energetic TC to multiple TC
 - Simulation study is needed first to see the performance
 - Make firmware more healthy (currently > 7 strategies are needed)
 - Clustering to all from 6 cluster
 - UT3 to UT4
- Test pulse
 - Prepare test pulse analysis basf2 module
 - Analyze both ECL and ecl trigger data for TC E and T
 - New CC quickly for HW replacement(ShaperDSP, etc)
 - Investigate the reason of 2 timing peaks

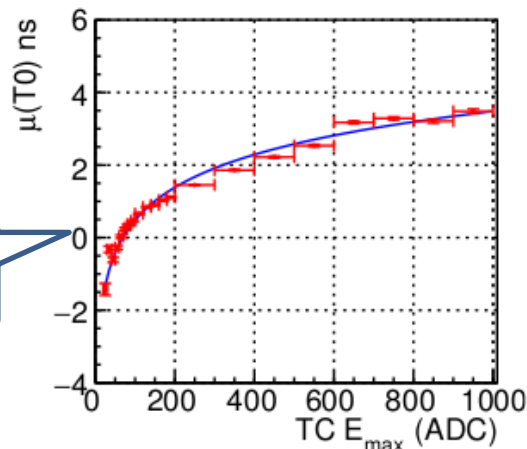
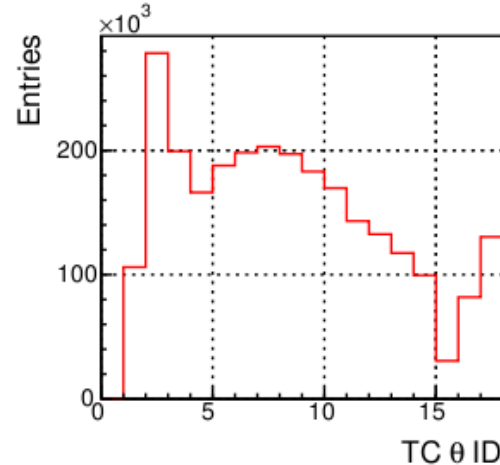
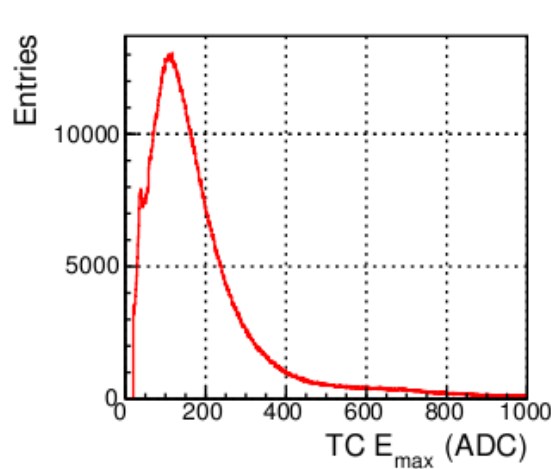
To-do list

- Update of confluence of ecltrg trigger bits for other belle2 members
- Trigger rate and beam background study for high luminosity condition
- Software
 - Beam background mixing module
 - Take into account nuclear counter effect
 - (but we don't know the signal shape...)
 - ConditionDB
 - Integer/firmware tsim-ecl
- Noise related program
 - updates noise level automatically for bkg mixing module
 - updates noise covariance matrix automatically
 - check TC waveform when injection veto is off.
- Belle2 note
- Paper

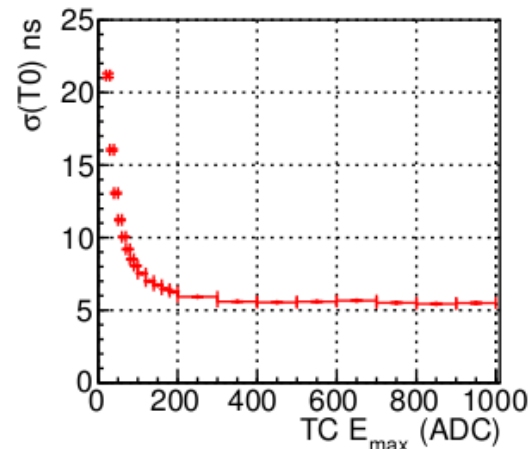
To-do list

- Study for future upgrade
 - (strongly depends on upgrade of ECL HW)
 - Pure Csl option
 - New bit instead of hie(!?), which is insensitive for beam background
 - Xtal ch by ch timing correction before analog sum on ShaperDSP
 - Improve timing resolution for low energy deposition
 - (Waveform record(?) by FAM or ETM ?)

Study with offline eventT0

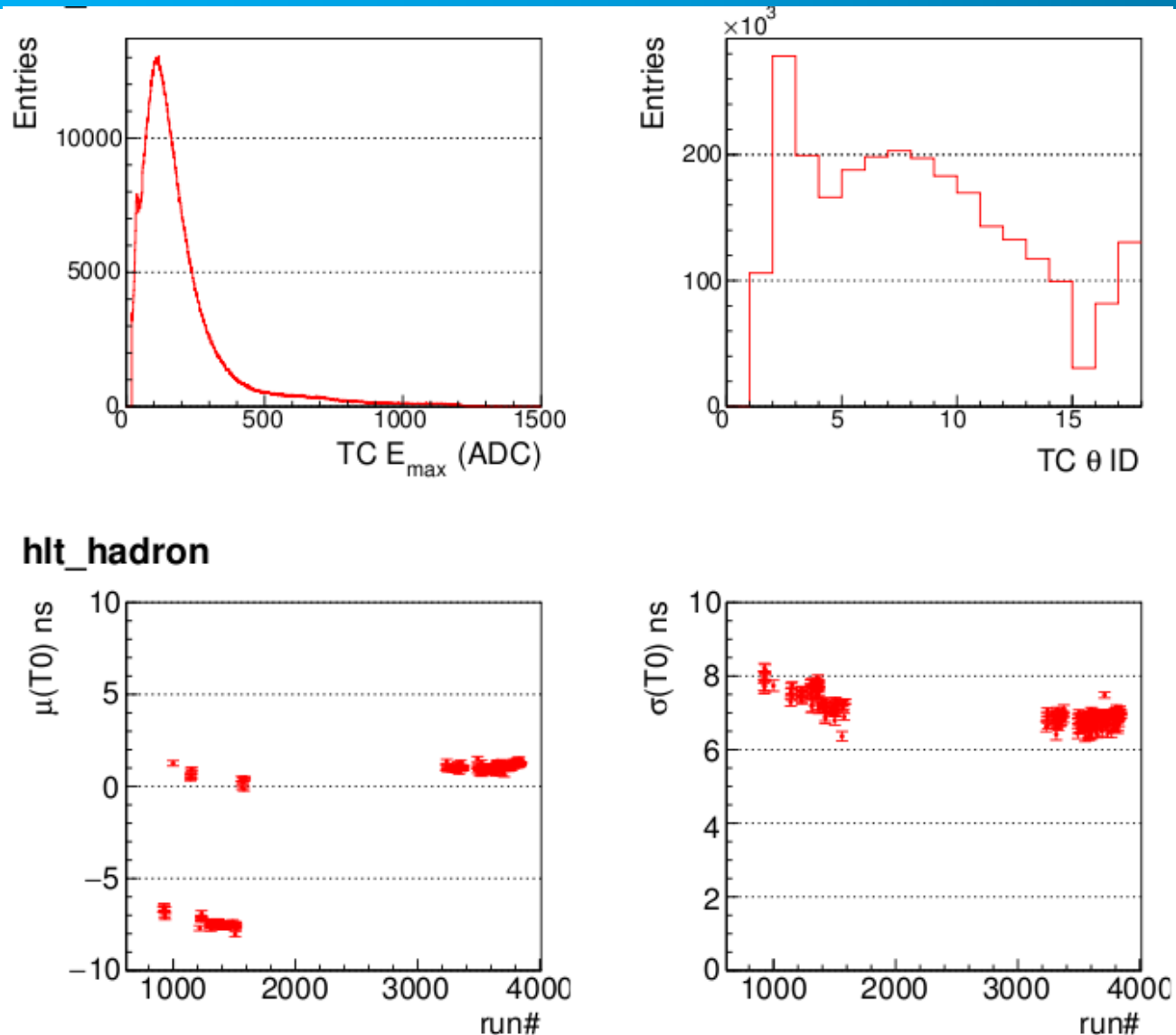


Probably, shown
by Torben at last
b2gm already

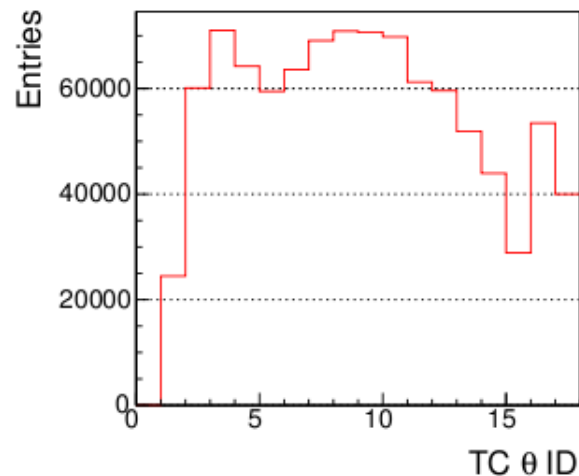
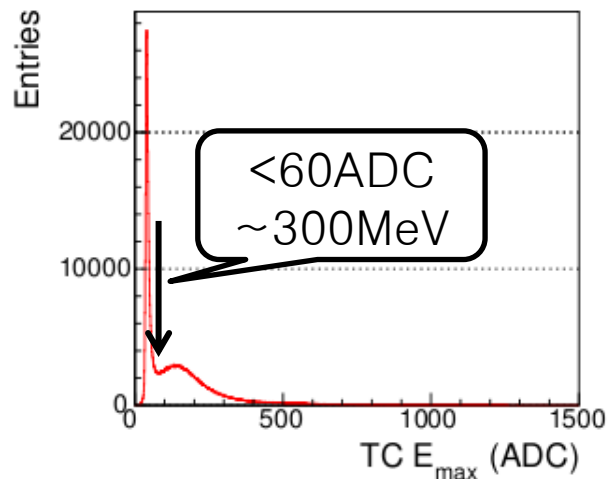


- Plan to update FAM firmware to apply timing correction by LUT.
- First, revisit simulator to find correlation between bias and noise level.

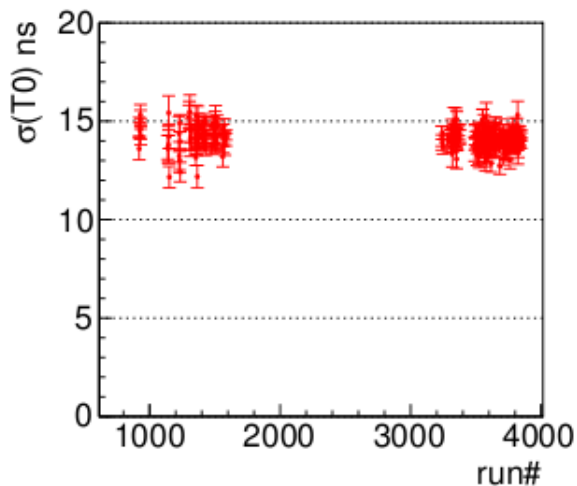
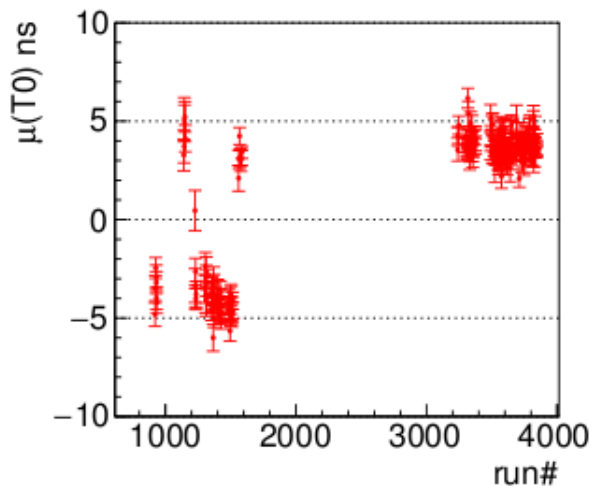
Study with offline eventT0



Study with offline eventT0



hlt_mumu_2trk



Why peak position is different from that of hadron skim ?

