

TOF MC Status

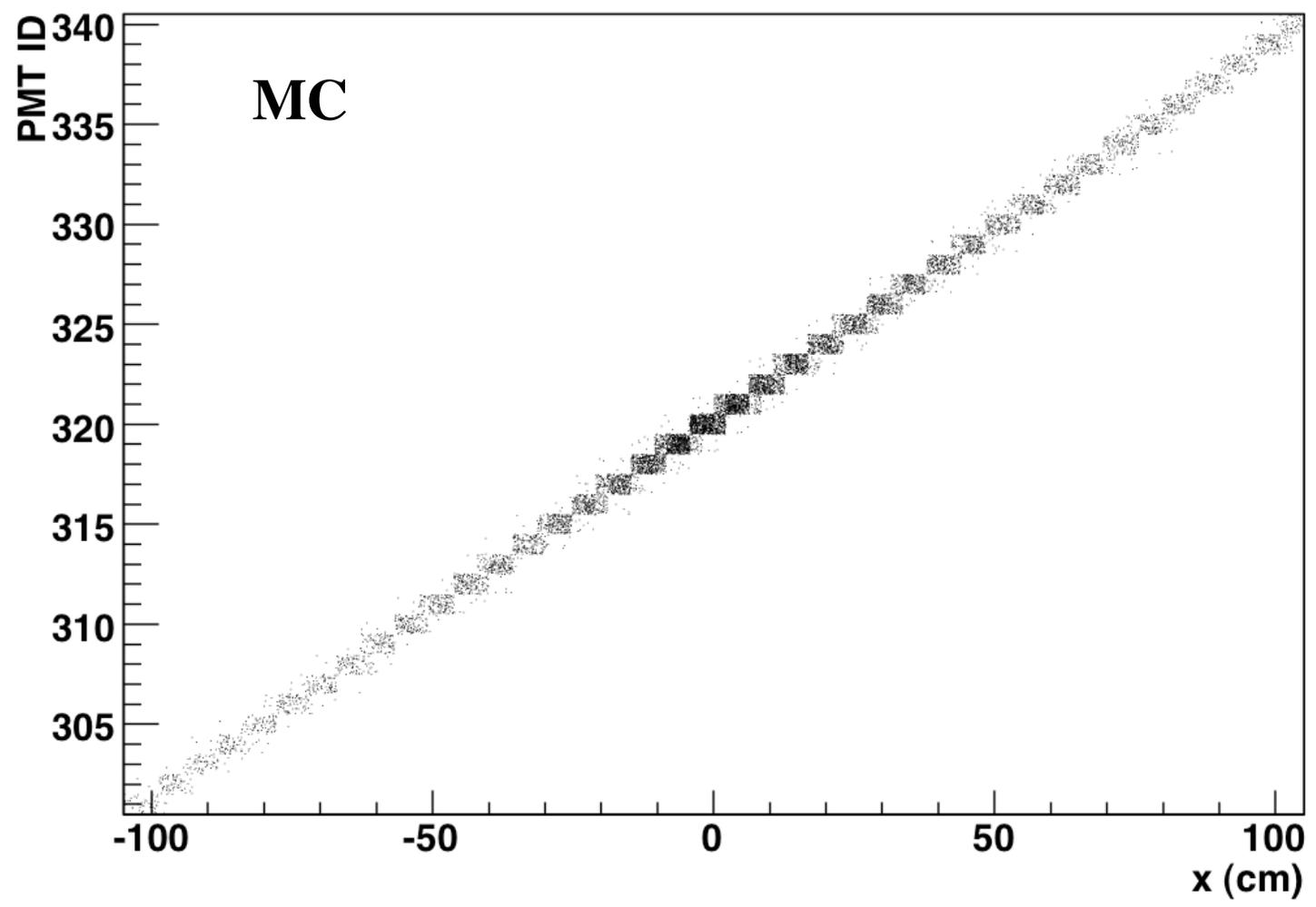
Durga Rajaram

9/13/07

Status

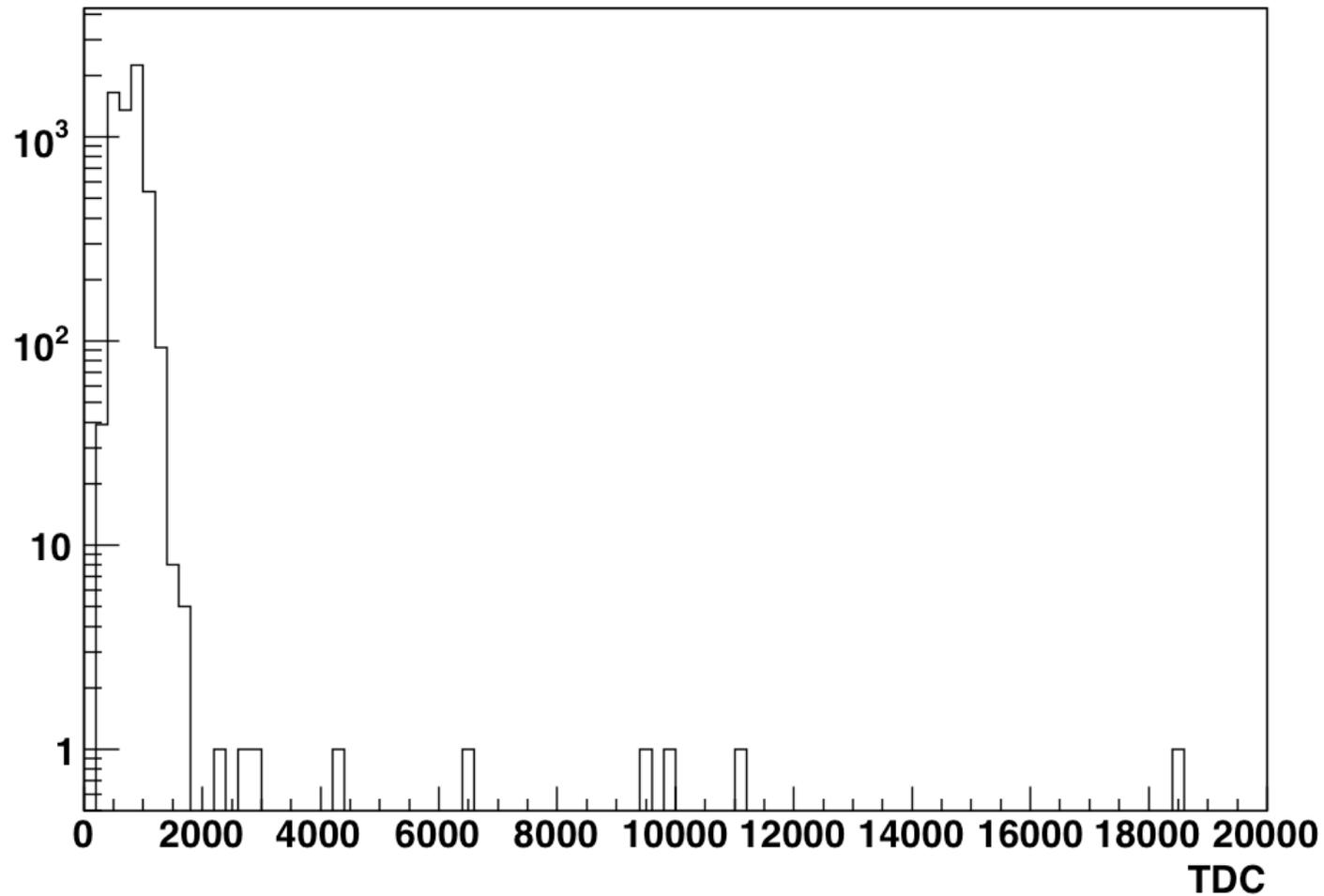
- bpMC_Job was not doing TOF digitization -- was commented out; now enabled
- TDC values coming out of digitizer were incorrect (overflowed & hence reconstruction failed)
- Removed offset (for TOF Wall counters) that was causing overflows
- Removed a 6.3ns offset that was being applied to all channels
- Time→TDC conversion: was using 50ps for all channels. Now reading from CMap
- Prop. Vel in bar was set to 30cm/ns → now 15
- Running on p+H58 MC data and comparing to LH2 data (Runs 16110-16114)

TOF Bar vs X position



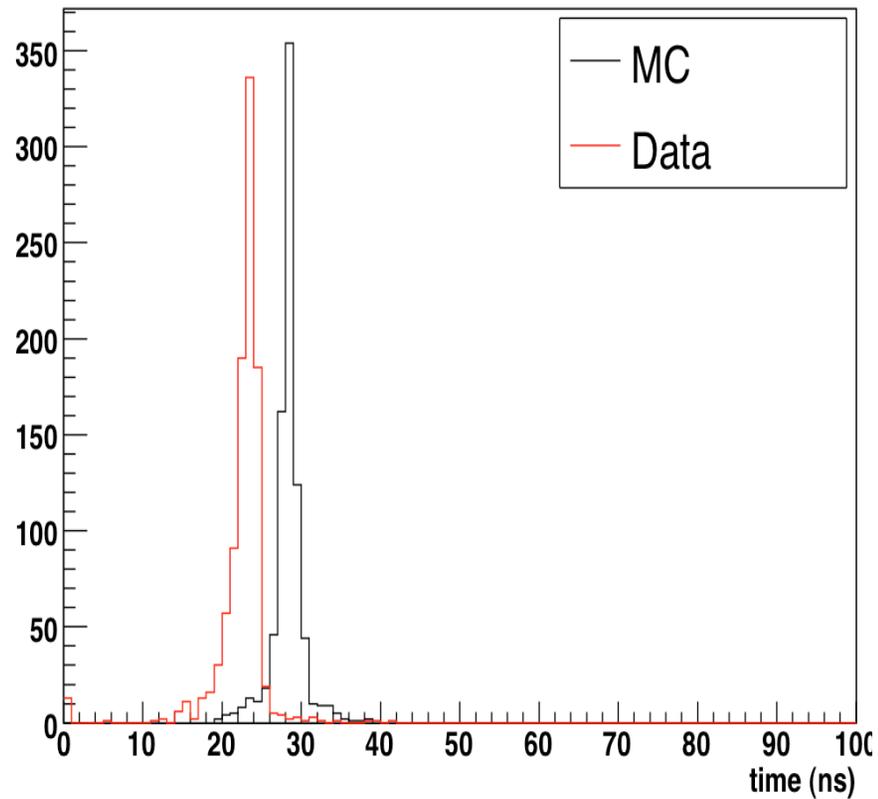
Sanity check: channel numbering is correct.

Top TDC - Digitizer

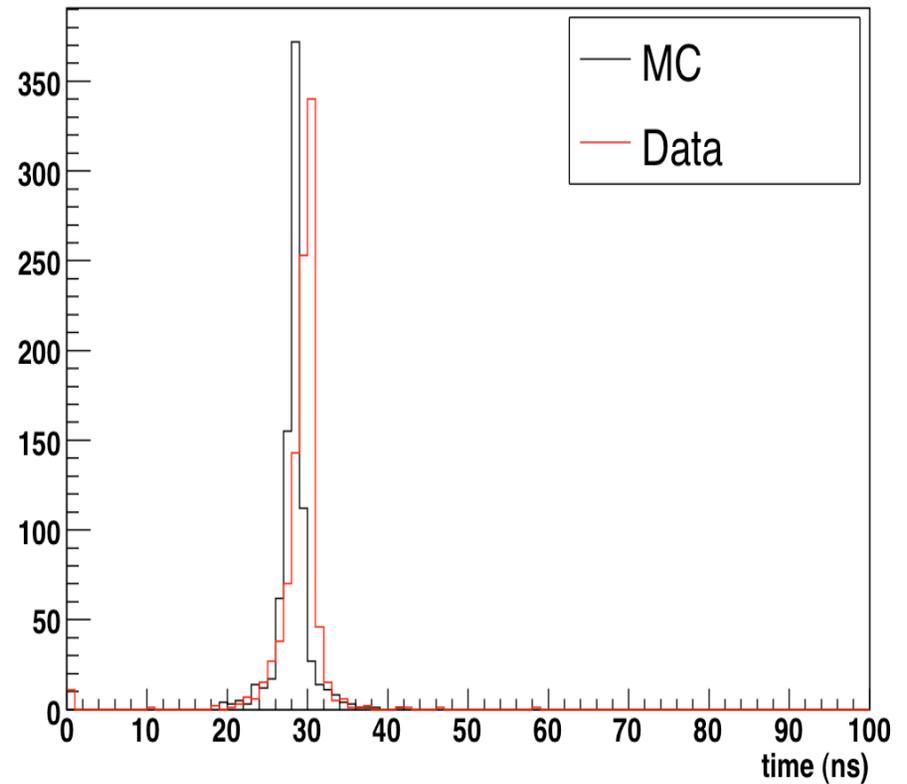


TDC still overflows sometimes. This appears to be related to tracks at very low y -- investigating...

Top TDC,320

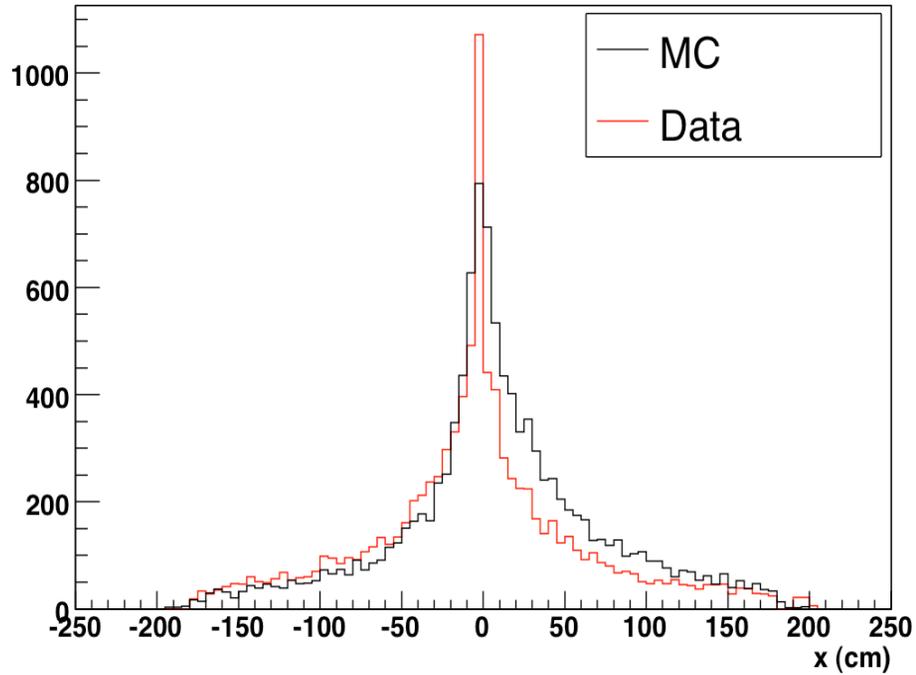


Bottom TDC,320

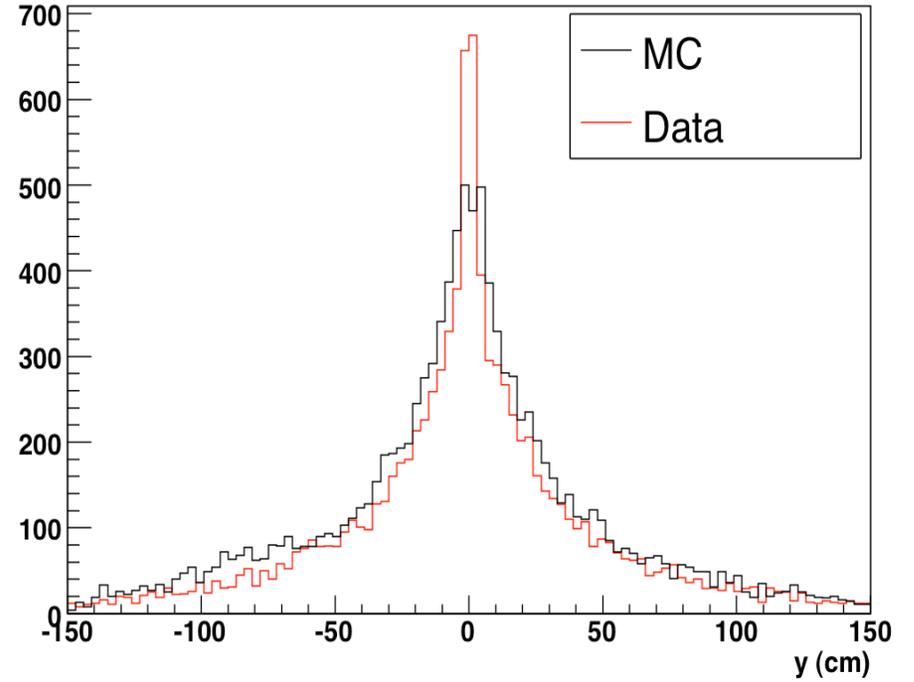


- TDCs are now in the “correct” range but not clear why the bottom matches better than the top

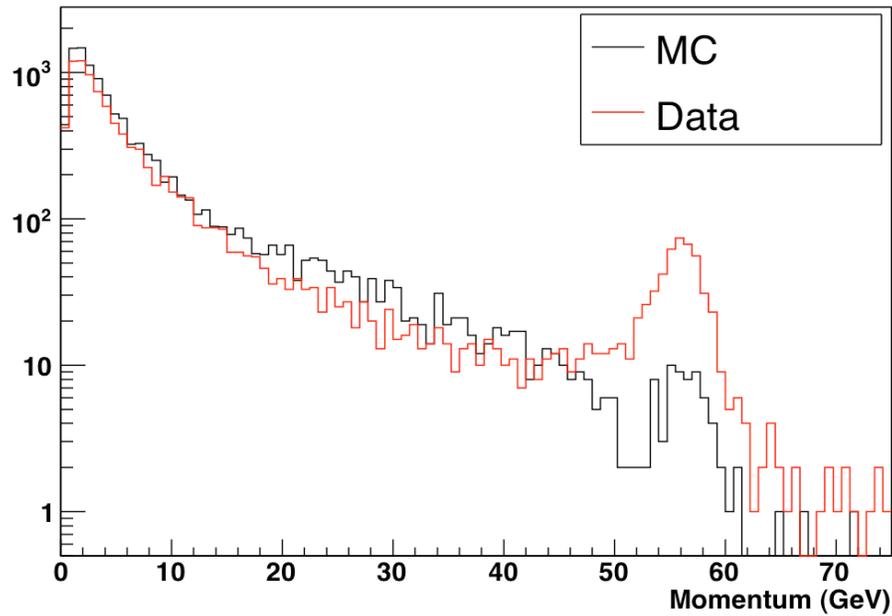
X position of TOF hit



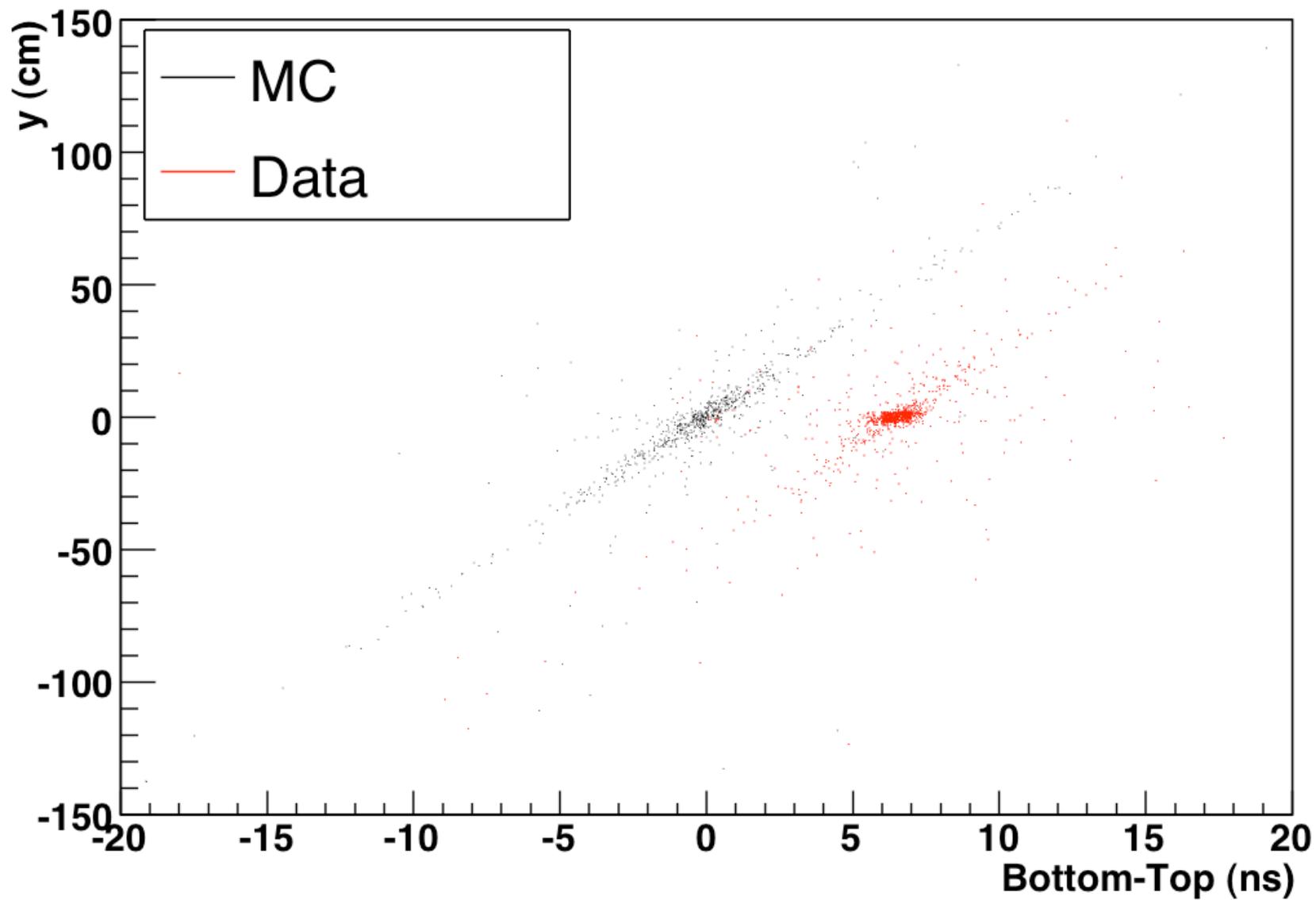
Y position of TOF hit



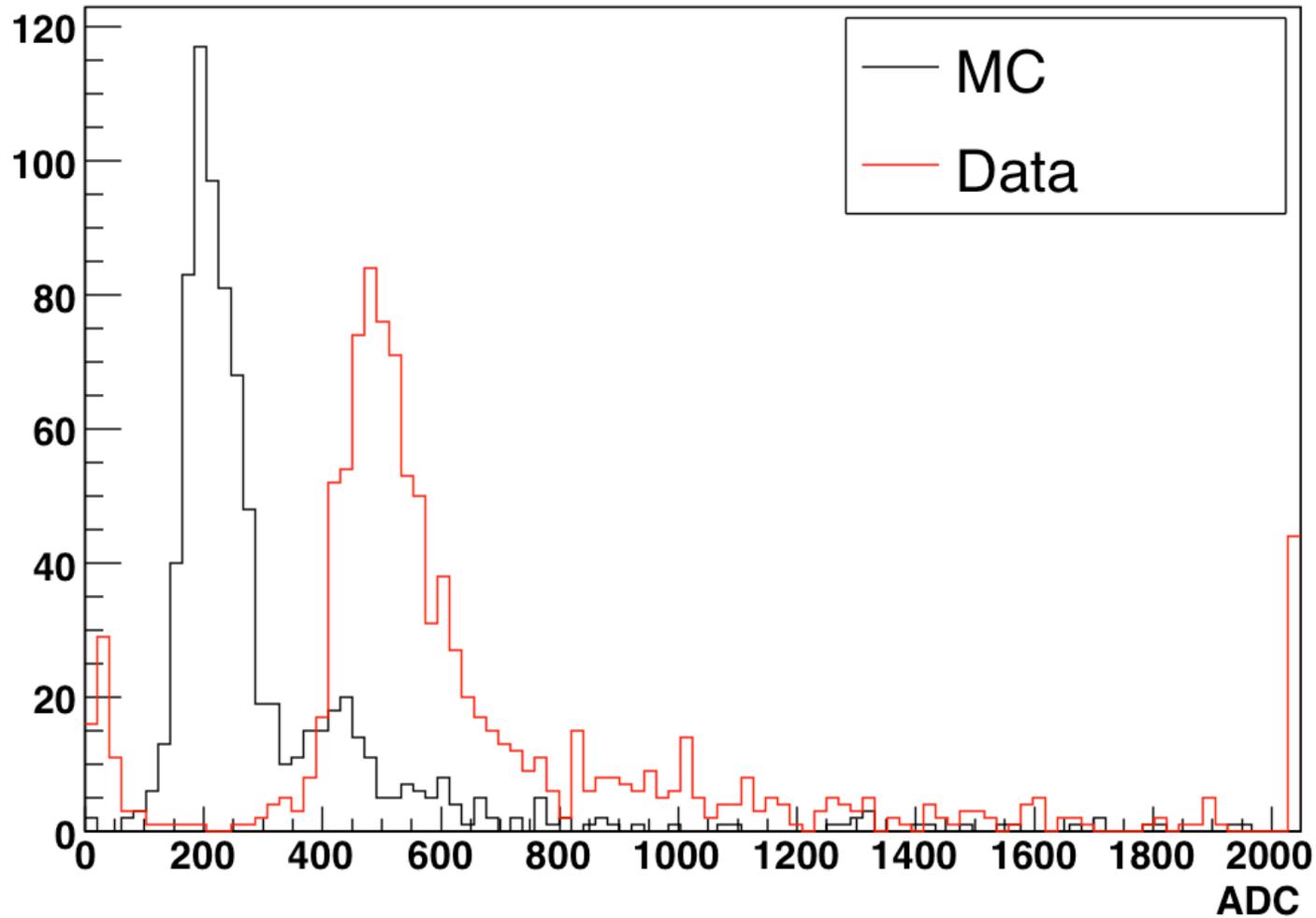
Track Momentum



Y vs Bot-Top



Top ADC,320



MC ADCs are off. Have just started looking at the ADC digitization/smearing.

In Progress/To Do

- Fix ADC conversion in the digitizer
- Check/Verify t0 digitization
- Interface with DB to read pedestals, etc