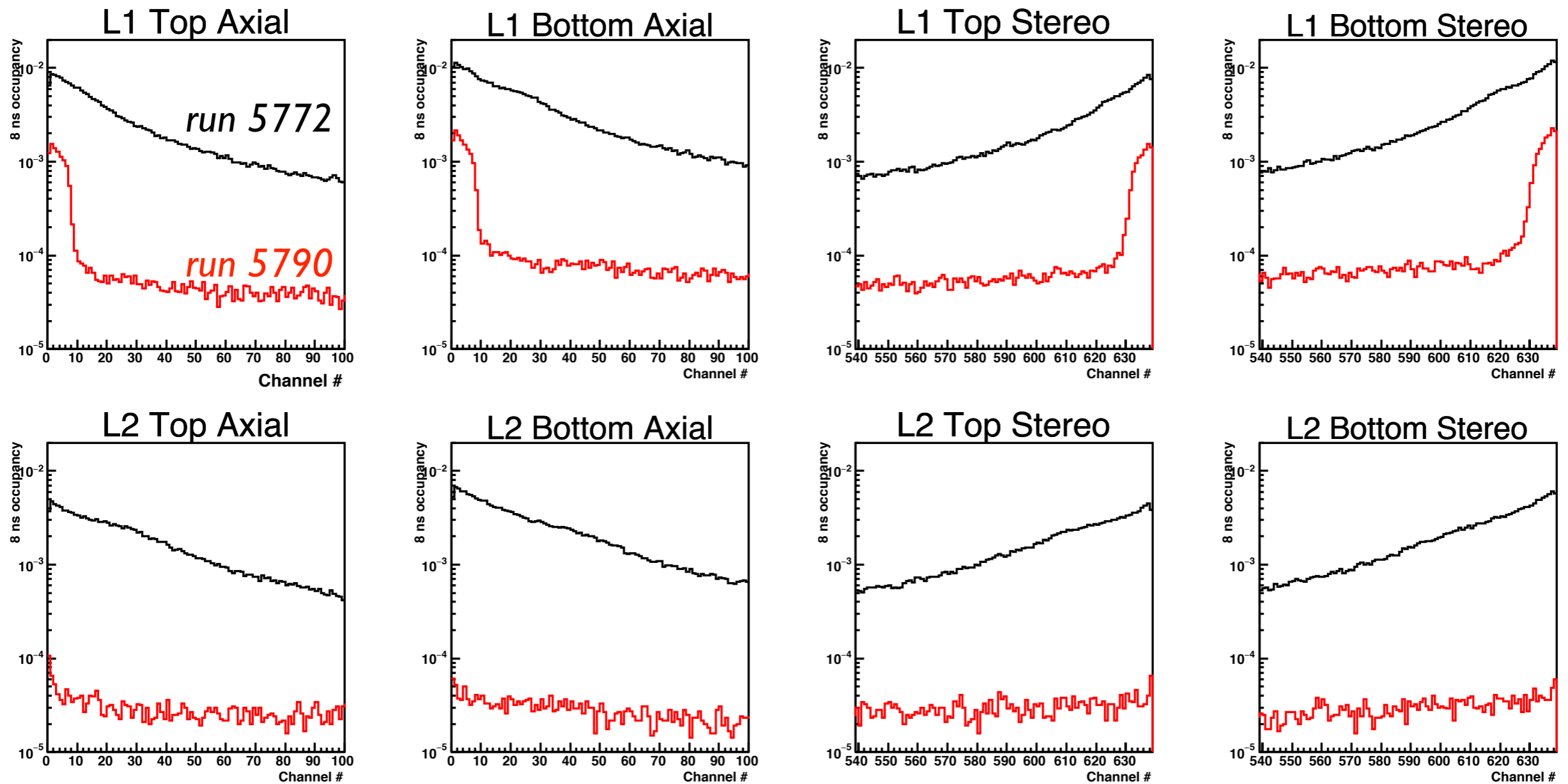


Beam Tails in the SVT

Tim Nelson - 8/24/15

Excess Occupancy at Edges of L1 Sensors

Effect is clearly seen in comparing runs with and **without** target



Occupancy is roughly 1/5 of physics occupancy, in 8-10 $60\mu\text{m}$ strips.

Thoughts

- Tails at this level are not a problem for the SVT. However, *if these tails were to be an order of magnitude larger*, they would dominate the occupancy in the critical regions of LI.
- If *distribution* of tails will be similar, want collimator $\sim 20 \times 0.060$ mm = 1.2 mm smaller than during the engineering run. 3.45 mm - 1.2 mm = 2.25 mm.
- *very roughly speaking* this level of beam tails corresponds to those which were measured during the engineering run, roughly 10^{-6} .
- I have asked FX to send me the data used to make this plot shown at the collaboration meeting...
- If someone will send me that, I can draw the SVT-observed tails correctly scaled on this plot!!

