Beamline upgrades for the Next Run

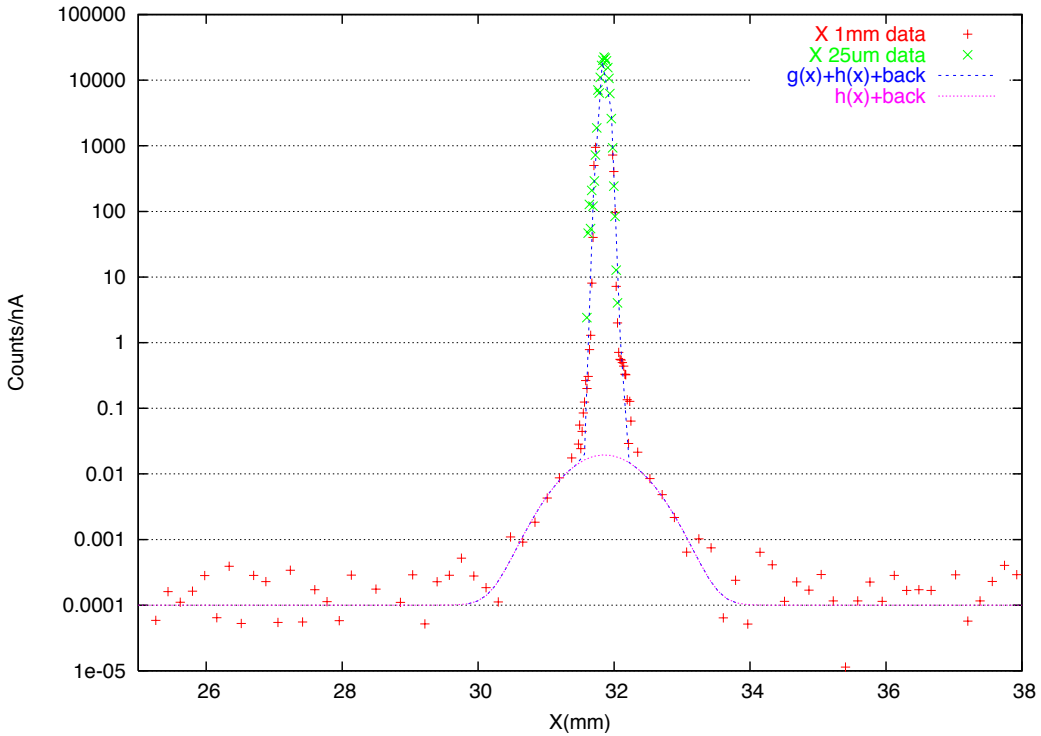
F.-X. Girod

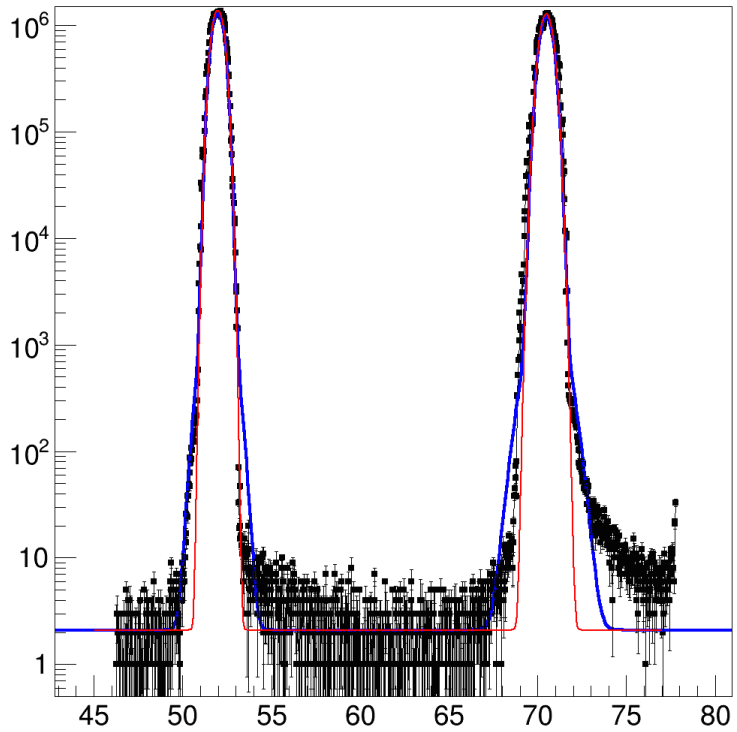
HPS collaboration meeting

Oct. $27^{th}15$

Understanding the beam tails

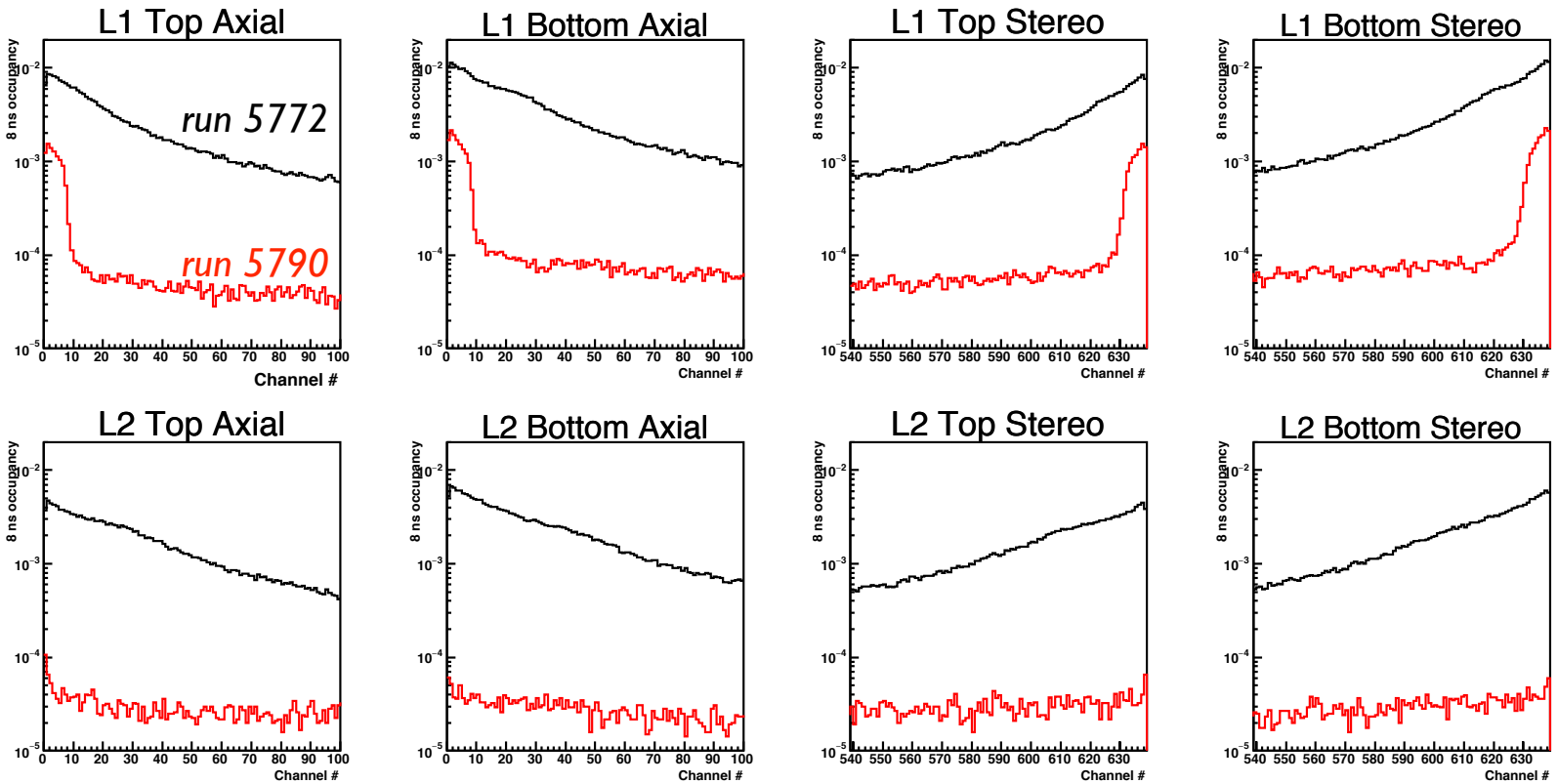
- Using thin and thick harp wires
- Combine data from low and high gain counters
- Fit profile with convolution function





Beam tails in the SVT

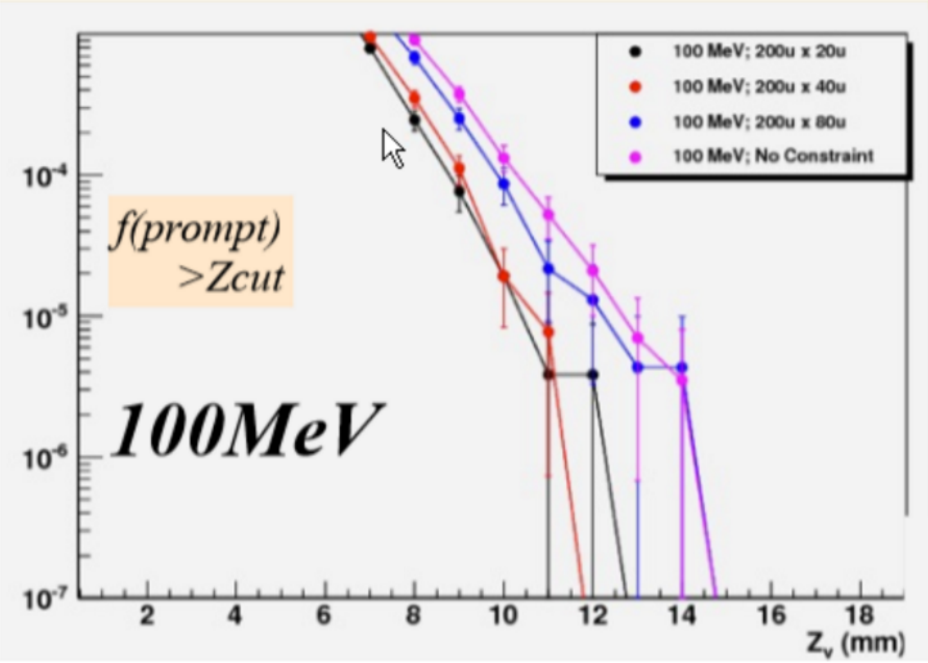
Effect is clearly seen in comparing runs with and without target



Cleanup collimator between Harp and "Collimator"

Measure the actual collimator gap and reduce it by 1.2 mm

Beam spot size



σ(beam x)	σ(θ_x)
40 um	.88 mr
80 um	1.12 mr
160 um	1.78 mr
200 um	2.14 mr

Are more simulations necessary to decide the beam spot size ?

Conclusion, other items

- Clean up collimator and smaller gap "collimator"
- Decide the best beam spot size
- Struck scalers readout deadtime ?
- Fast Shut Down faster ?