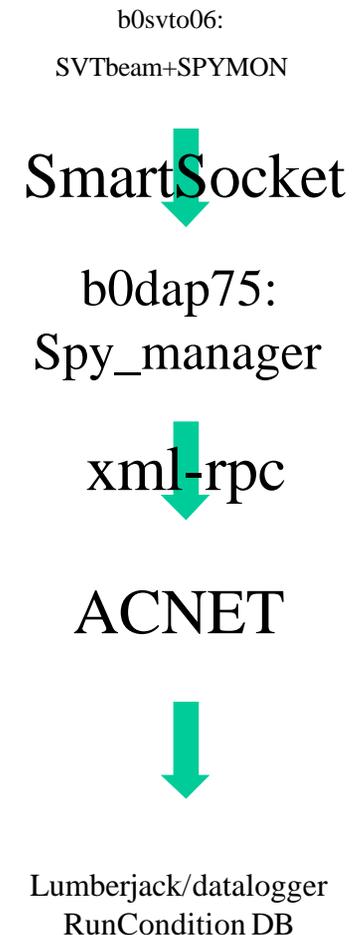


# SVT beam widths on ACNET

- Luciano's fit reports 6 beam widths:
  - beam subtracted RMS of the  $|d| < 250$  um distribution
- SPYMON writes a SmartSocket message
- Spy\_manager on b0dap75 decodes it and sent modified info (units) to ACNET via xml-rpc
- Devices are:
  - C:SVTWX[0-5] + C:SVTWY[0-5] (equal by construction)
- Scheme was there since a long time but...
  - Was reported not to work
  - I believed the reports and failed to make the necessary checks for some time
- Values around 100 um; variation with Z < 10%

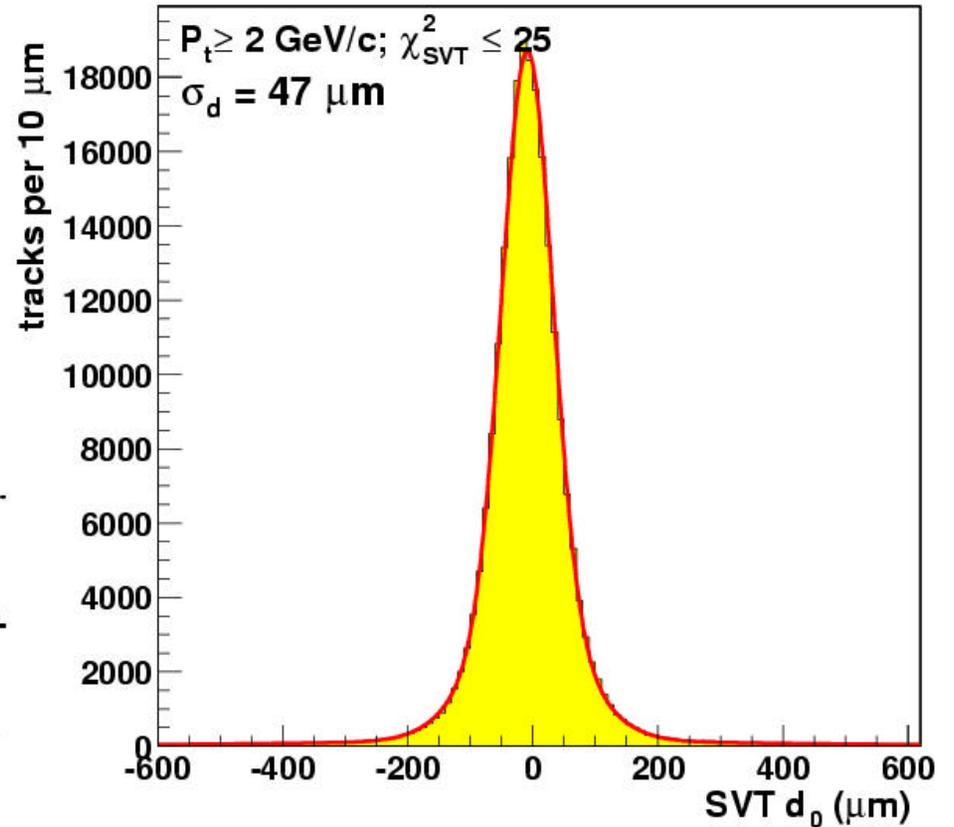
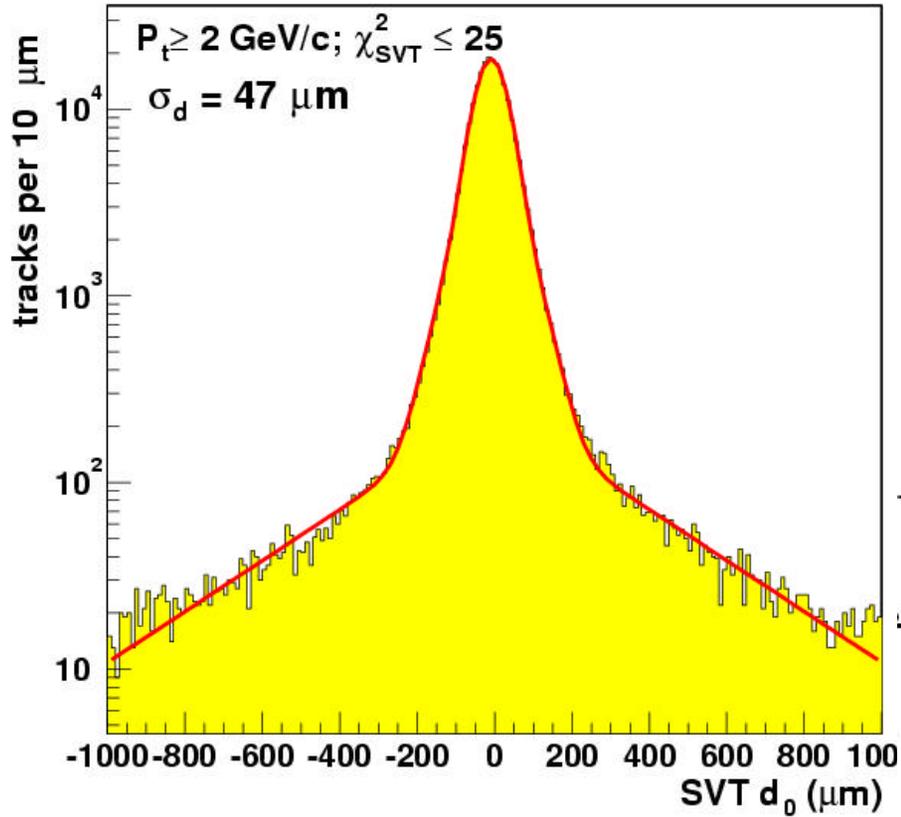


# SVT beam widths on PR plots

- We have been asked to provide updated PR plot
- Took the online beam profile (available for all wedges/phi slices/barrels/total) that contains all tracks with  $P_t > 2$  GeV and  $\chi^2 < 25$
- Fit with an empirical formula:
- $N(f_1 * \text{Gauss1} + f_2 * \text{Gauss2} + (1 - f_1 - f_2) * \text{Gauss} \otimes \text{Exp})$
- Works very well for almost every single wedges
- Tails difficult to model for the overall plots (we know that the shape in every wedge is pretty different)



# SVT beam widths on PR plots



- Best wedge: B4W3

# SVT beam widths on PR plots

- All wedges

