

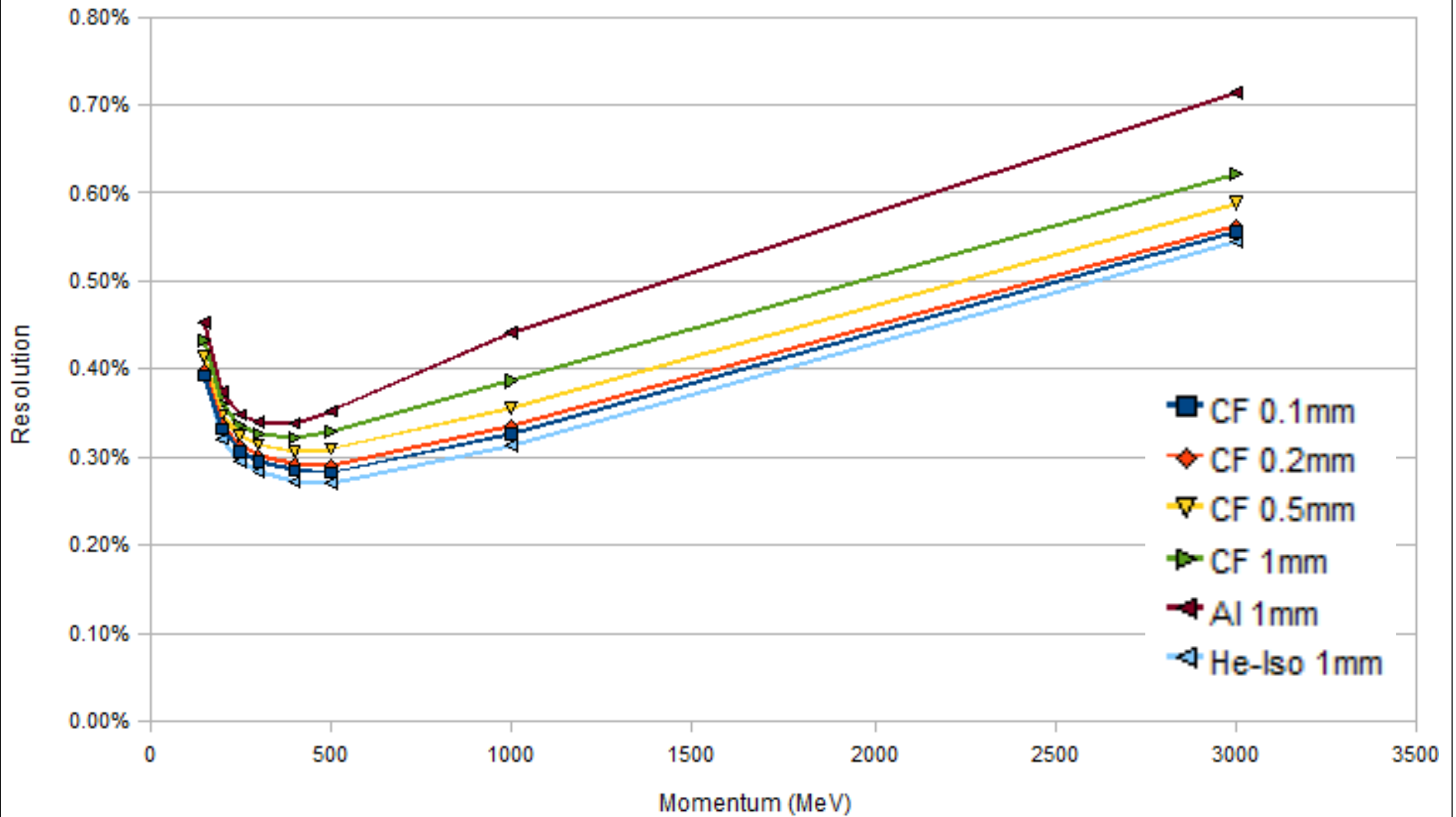
# TRIUMF/UBC DCH Activities

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4-Apr-2011

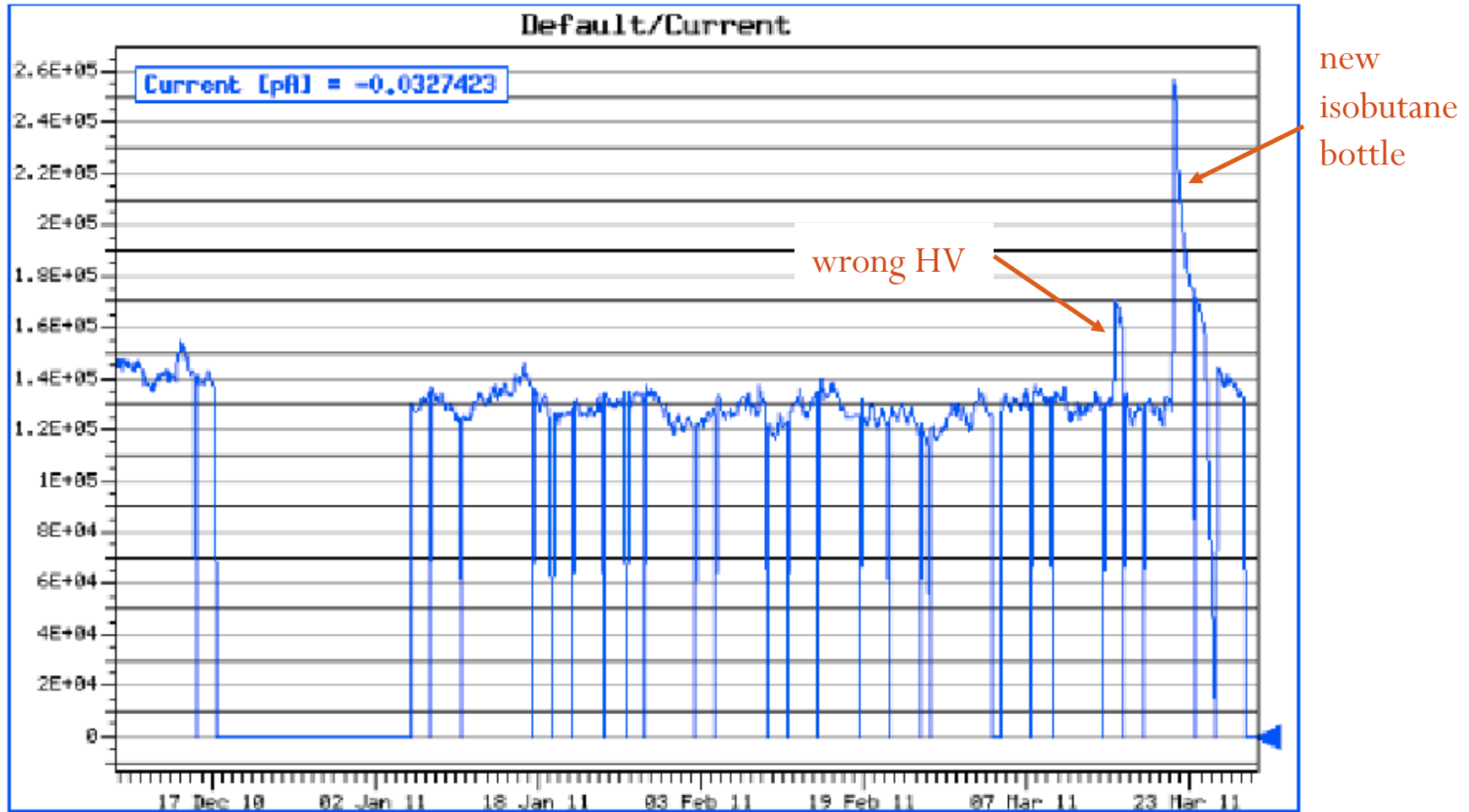
# Inner Cylinder

- See earlier talks by me and Giuseppe 31-Jan-2011:  
<http://agenda.infn.it/conferenceDisplay.py?confId=3321>
- Since then Philip Lu has been using FastSim to look at single track ( $\pi$ ) momentum resolution for different inner cylinders.
  - 1 mm gas; 0.1 / 0.2 / 0.5 / 1.0 mm CF; 1 mm Al
  - Real cylinder also needs RF shield
- Results agree with Giuseppe's conclusions that thinner inner cylinder gives noticeable resolution improvements.
- New version of FastSim has improved multiple scattering model; might be worth checking. Might also be nice to try Geant, but quite a bit of overhead.

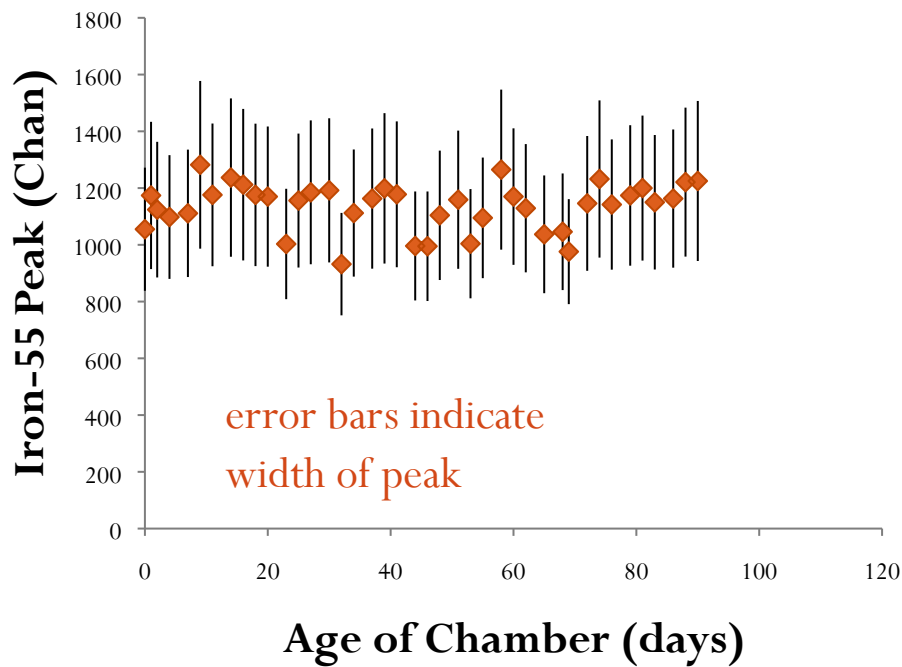
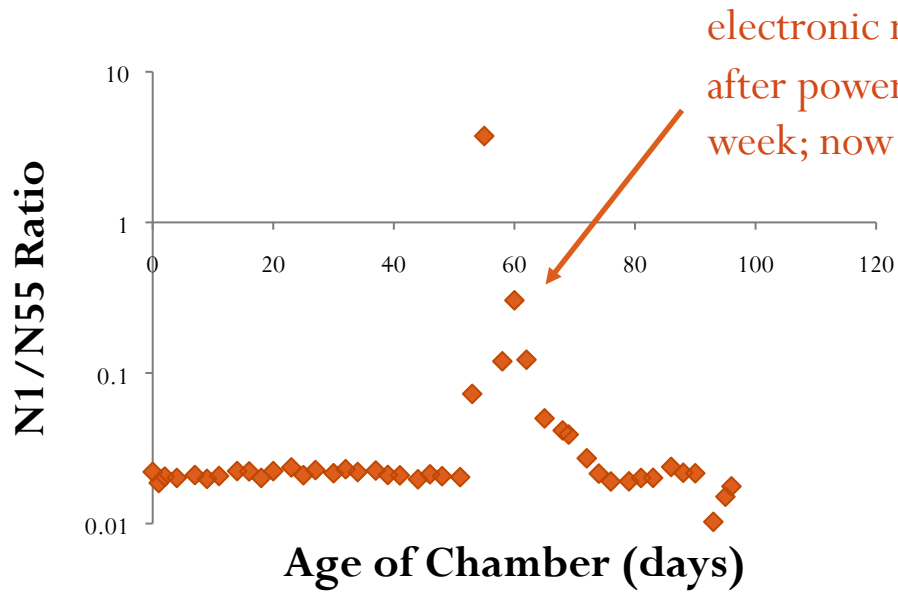
FastSim momentum resolution for single  $\pi^+$  near  $\theta = 90^\circ$ , various inner cylinder thicknesses



# Aging chamber – current vs time



- $\sim 100$  mC/cm with no obvious signs of aging
- Rocky and Wayne will continue until chamber dies



No sign of grain drop in Iron-55 peak. No sign of resolution degradation.