Update on the Parametric Model on Charge Deposition in the Silicon Detectors

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Current Status:

-Status and latest plots are being posted at:

http://www-cdf.fnal.gov/internal/people/links/SebastianCarronMontero/paramplots.html

Site will include: latest Validation Plots, status of each release, known problems, code updates, tcls and general instructions. Maintained by S. Carron and Jason Jarrell.

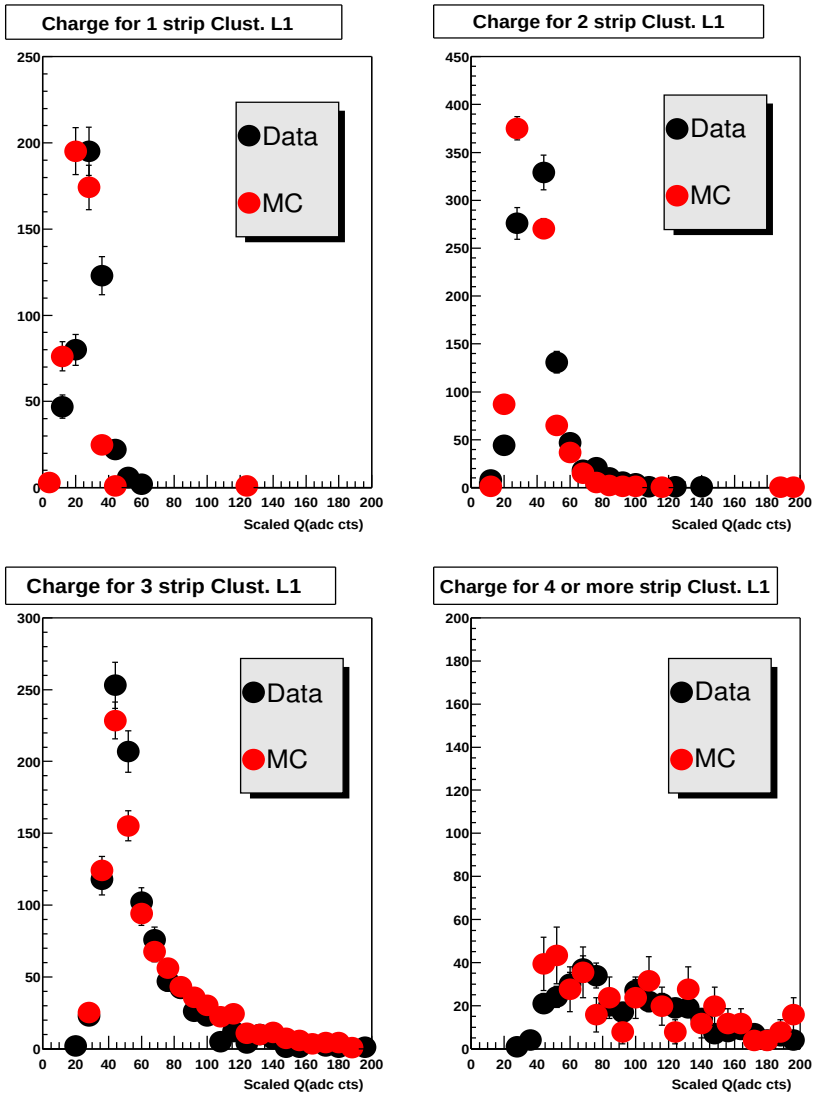
-As has been shown before in these meetings. For SVX Layers 1 to 5 and ISL (layers 6 and 7), our main validation plots are looking fine: Cluster Width distributions. Cluster Charge distributions, Geant-SiHit Residuals, etc.

-Currently Jason is re-running the validation macros to get final verisions of all the plots, which will be included in a CDF NOTE (a rough draft of the note is available at the website).

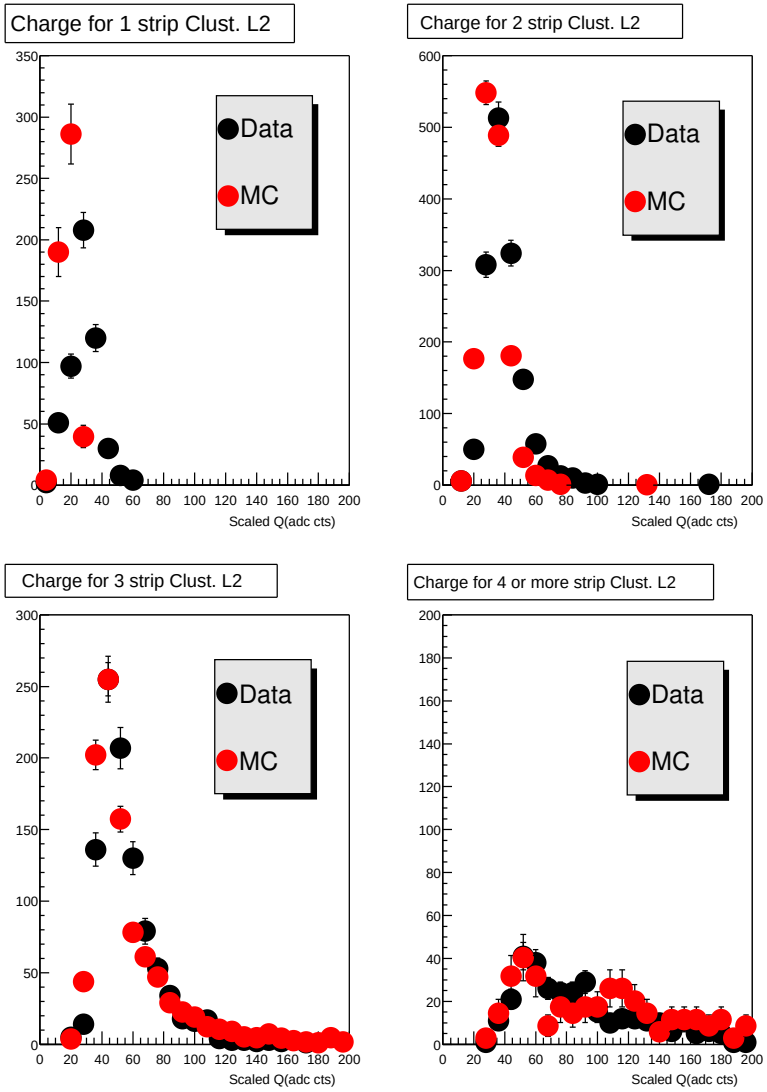
-Recently A. Dominguez implemented a switch that calls the Geometric model when L00 needs to be filled. We will post in the Website our testing of this switch, which is part of our re-validation efforts with Jason.

-For today, we have a few plots that were not shown before, by request of A. Foland.

Phi Side-Parametric Model Charge Distributions

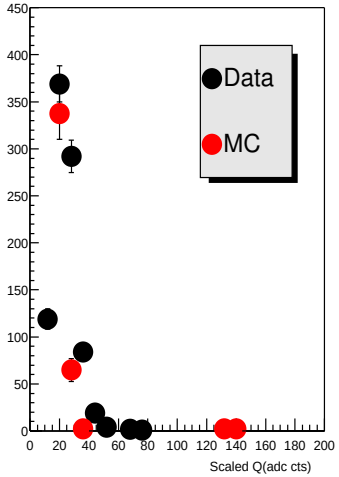


Phi Side-Parametric Model Charge Distributions

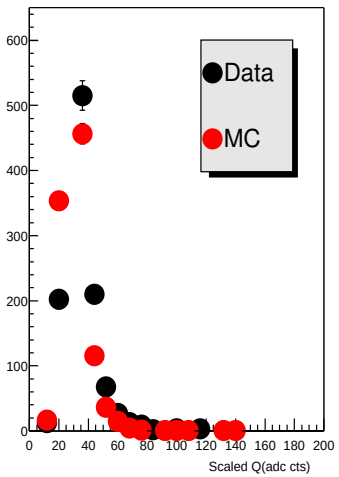


Phi Side-Parametric Model Charge Distributions

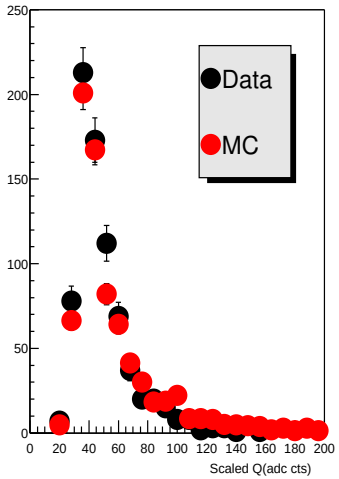
Charge for 1 strip Clust. L3



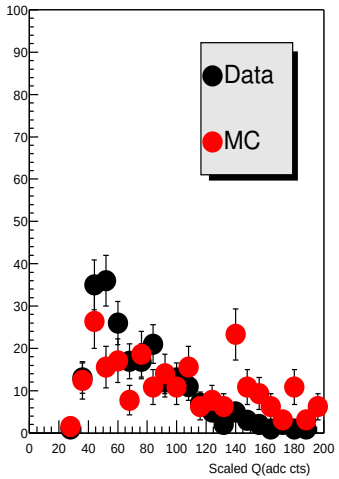
Charge for 2 strip Clust. L3



Charge for 3 strip Clust. L3

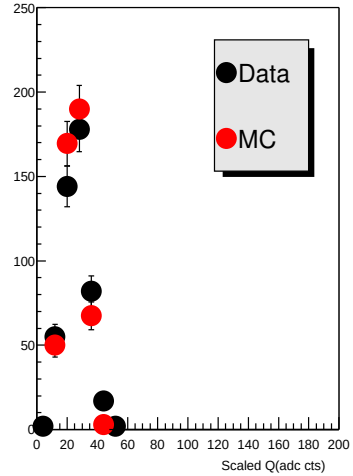


Charge for 4 or more strip Clust. L3

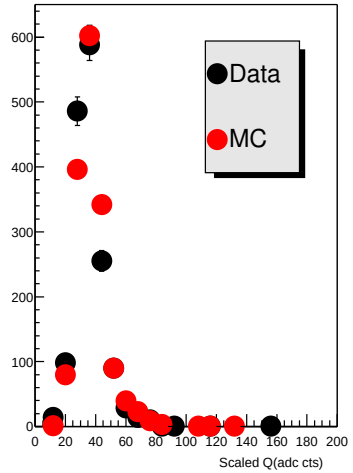


Phi Side-Parametric Model Charge Distributions

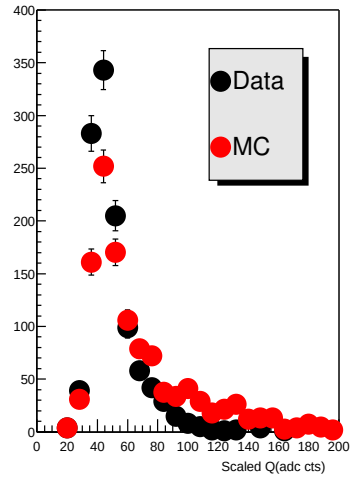
Charge for 1 strip Clust. L4



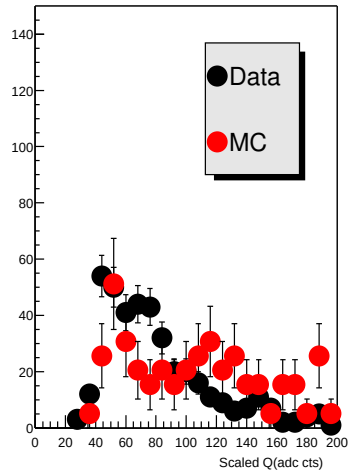
Charge for 2 strip Clust. L4

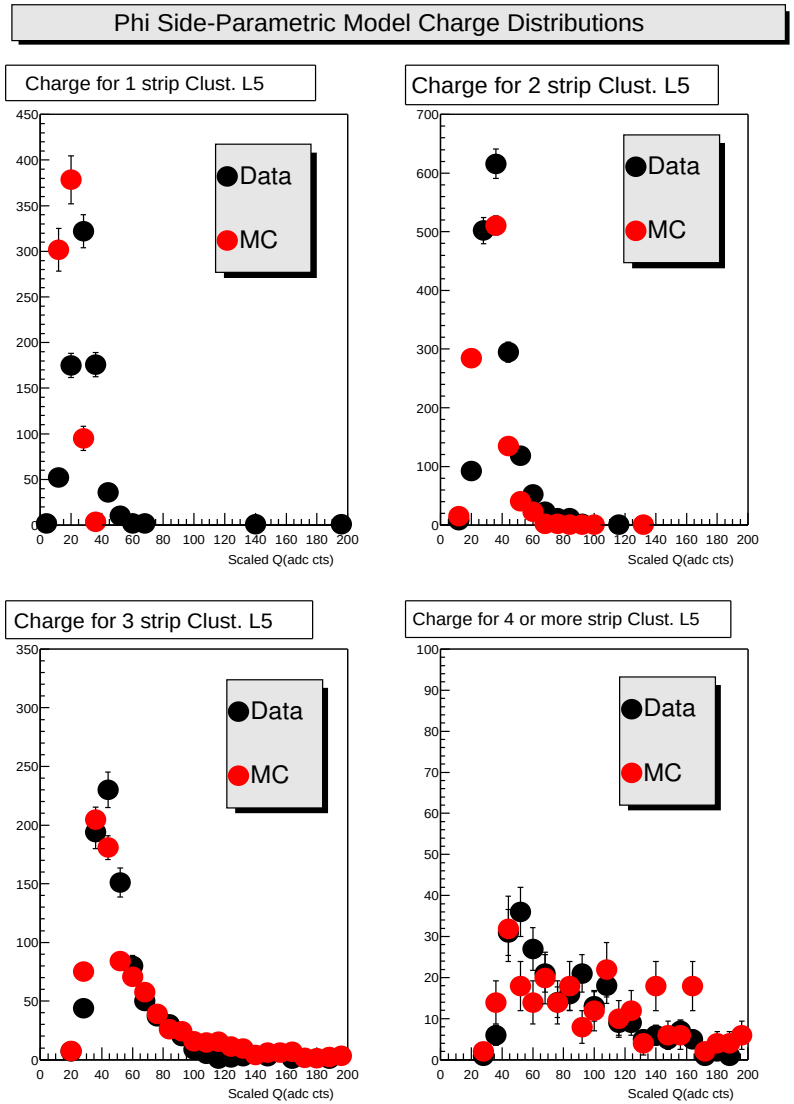


Charge for 3 strip Clust. L4



Charge for 4 or more strip Clust. L4





-For the Z-Side, also exelent agreement is reached

-Better agreement for 1 strip clusters is obtained if more noise is added and the option all is used, this however slows the simulation considerably

-Will try to make a private version available from the website that includes the additional noise (Noise cut is not currently set from tcl, it is hardwired into the code)

-Toguether with the other validation plots we will make available in the website also these plots for the ISL, and L00.