CsI Calibrations

(Refer to the documentation "calibration.doc" for detailed calibration procedures and instructions of Fitter program)

1. Load "2d_Si_MeV_CsI_Raw.tcl" and sort data run with Si calibration file (vdef-file)
2. Save the spectra in .asc format
3. Copy Fitter configuration file (/projects/proj4/hira/LS_program/Fitter/fitter.cfg)
4. Call "Fitter" by /projects/hira/LS_program/Fitter/fitter
5. Click "CsiCalib" button to bring up the interface
6. Go to "CsICalib" and "Add Spectra to list"
7. Open spectra file and use the "up" and "down" button on the keyboard to select spectra for calibration.
8. Click the particle button and draw the contour for that particle in the spectra. (refer to remark 1)
9. Click the particle button again to close the contour and then click "Profile"
10. Do the same steps for other particles
11. Click the button "PolyFit" and the program will establish the linear fit for all particles chosen and display it in the lower panel.
12. If the fitting is acceptable, click "Accept" to save the calibrated parameters in database; otherwise repeat the above procedure (as shown in the figure).
13. To use the cuts from the previous spectrum instead of drawing cuts, you can click "Draw cuts" in the new spectrum.
14. After the calibration is finished, you have to go to "CsICalib" and click "Save offset/slope vdef".

Remarks:

1. It is important to draw the contour with sharply vertical cuts because of the analysis strategy and not include the data which reach the saturation line (eg: proton data below 2 MeV).

2. Also, we calibrate CsI by either EF or EB. To avoid confusion, it is suggested to select the EF or EB plane in “Select tele and plane” window before starting the calibrations.