

Cross-Talk Cleaning

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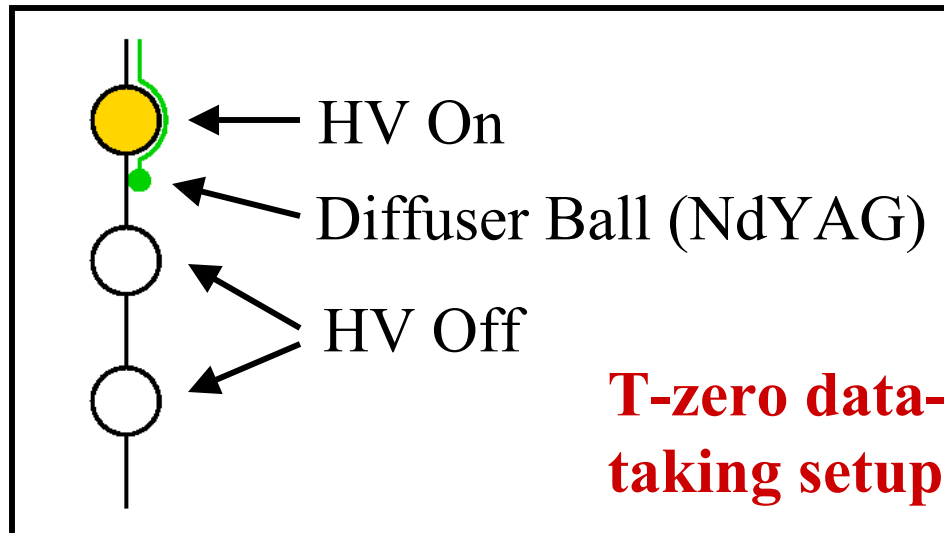
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- Review of the Cross-Talk Cleaning ‘Cascade-Paper Style’
- Available Maps and ADC-TOT fits
- Documentation and Other Stuff

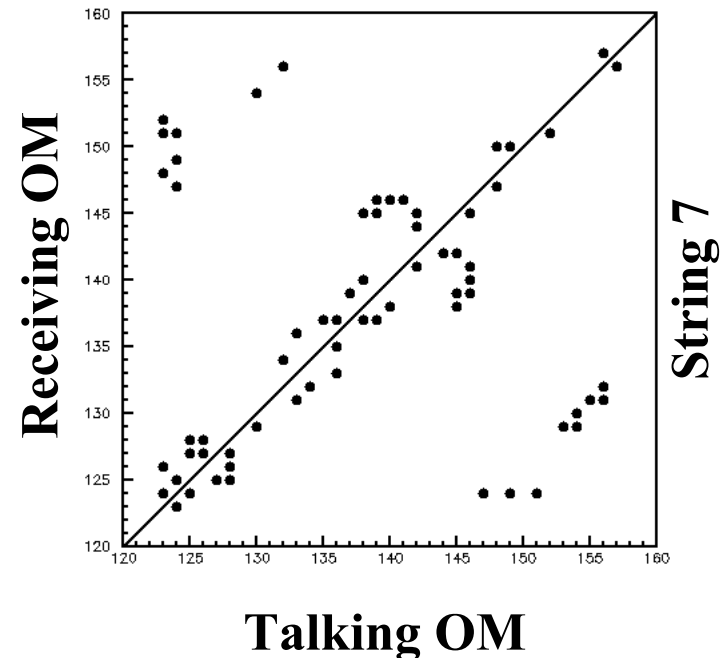
Cross-Talk Map

- Using T-zero data the correlation in raw LE and amplitude (ADC) is found between talking and receiving OMs.



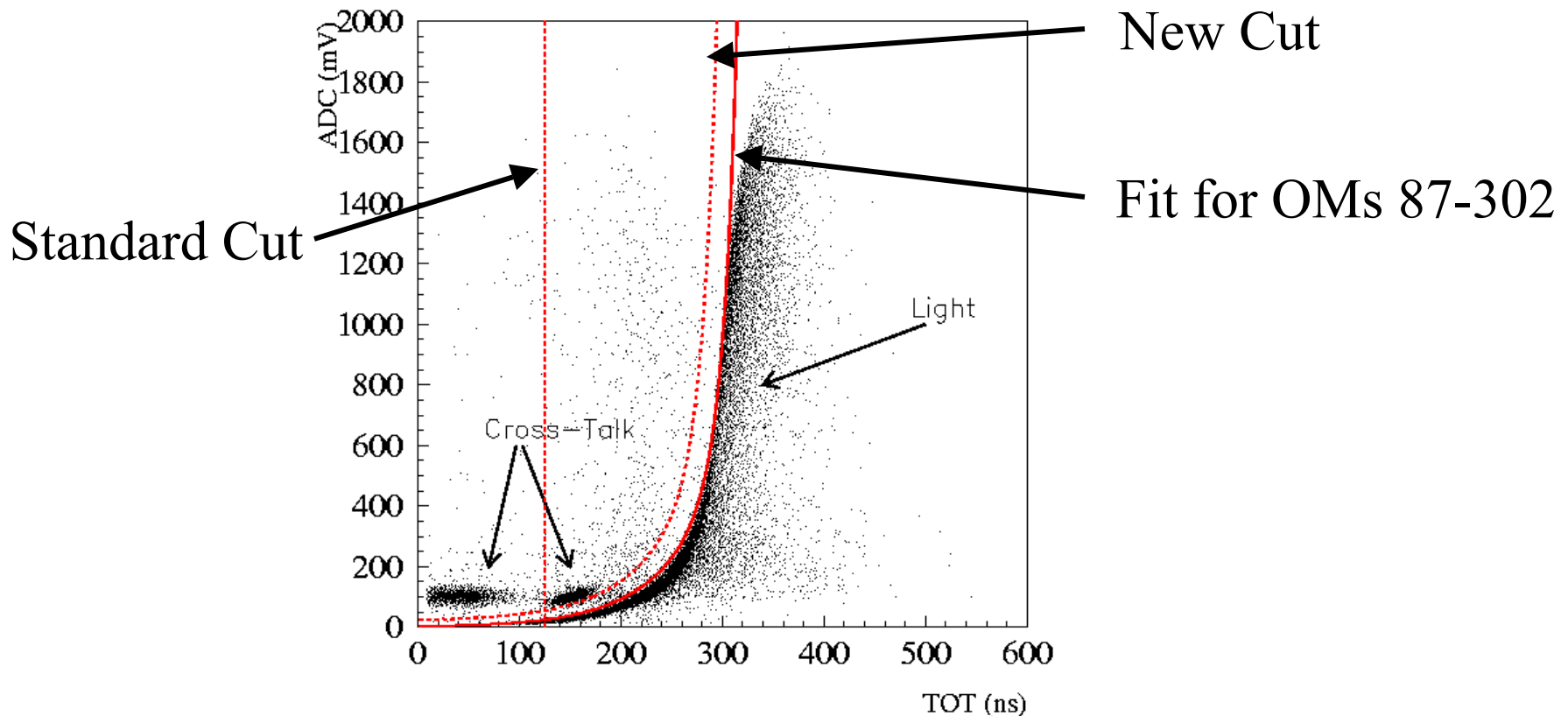
Cross-Talk Map

- Cross-Talk (in B10) is relevant for strings 5-10
- Three types of cross-talk: Near-neighbor, lobe and top-bottom



ADC-TOT Cleaning

- The map also contains information on the correlation in **raw LE and ADC**
- Cut the unphysical region of the ADC-TOT space



Cuts used for the Cascade Paper

- Standard 1997 hit cleaning
- $TOT_{\text{hybrids}} > 200 \text{ ns}$
- ADC-TOT Cleaning
- Use cross-talk map for top-bottom xtalk
- ADC-TOT and cross-talk map cuts implemented by the program **xt-filt**
- *Other analyses should check the validity of these cuts*

Fits and Map Availability

- ADC-TOT fits available for
 - 1997 Exp
 - 1999 Exp (Preliminary)
 - 2000 Exp
 - Mass Production 2000
- Cross-Talk map available for
 - 2000 Exp (Should be usable for 1997-2001 & MC)
- ADC-TOT fits and Cross-Talk map easy to produce for other data samples

Documentation

- Web page documentation:
www.fis.usb.ve/~itaboada/
- xt-filt available from web-page and Penn CVS (should be moved to Wisc. CVS and recompiled for new RDMC with waveform support)
- The cuts presented use all (B10) the available knowledge about cross-talk (Improvement is possible with more work, of course)
- Easy to expand to incorporate xtalk in strings 11-19

Proposal

- T-zero data is needed every time the electronics change (for cross-talk map)
- In order to use ADC-TOT it is necessary to understand the quality of ADC and TOT for every OM for every run for every season of experimental data (monitoring or post-mortem analysis)