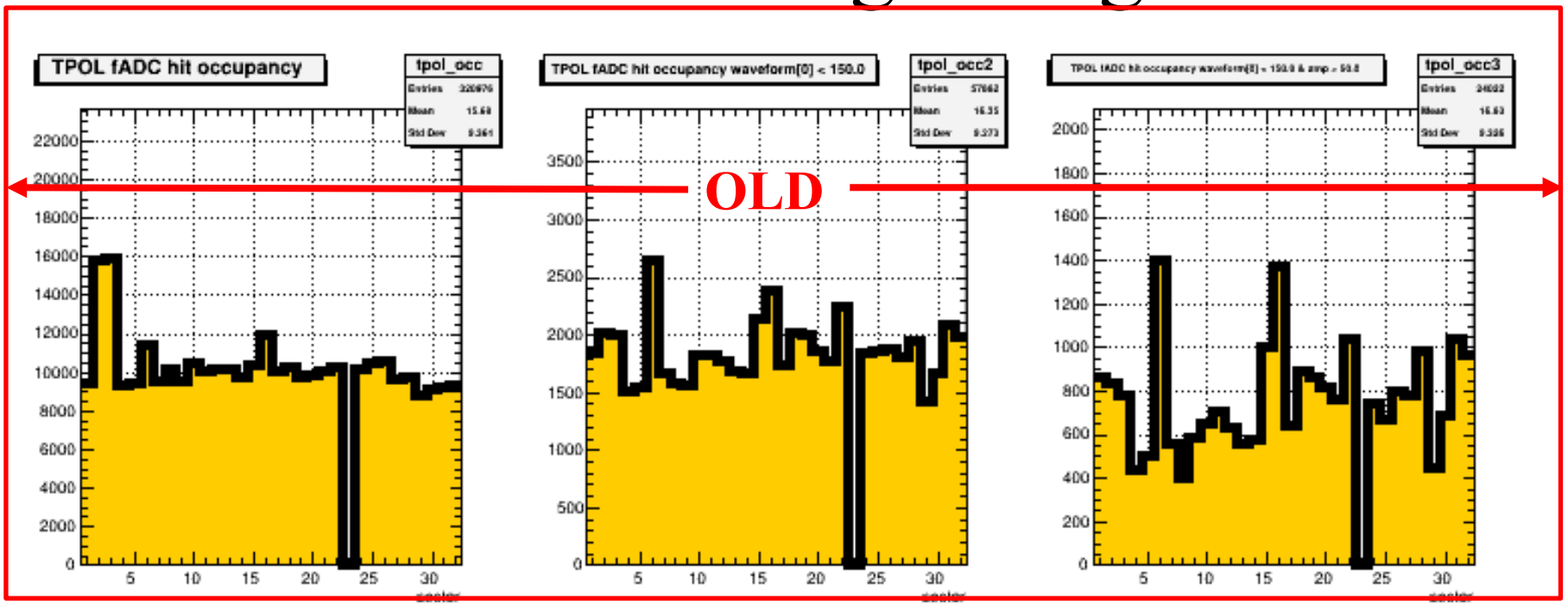
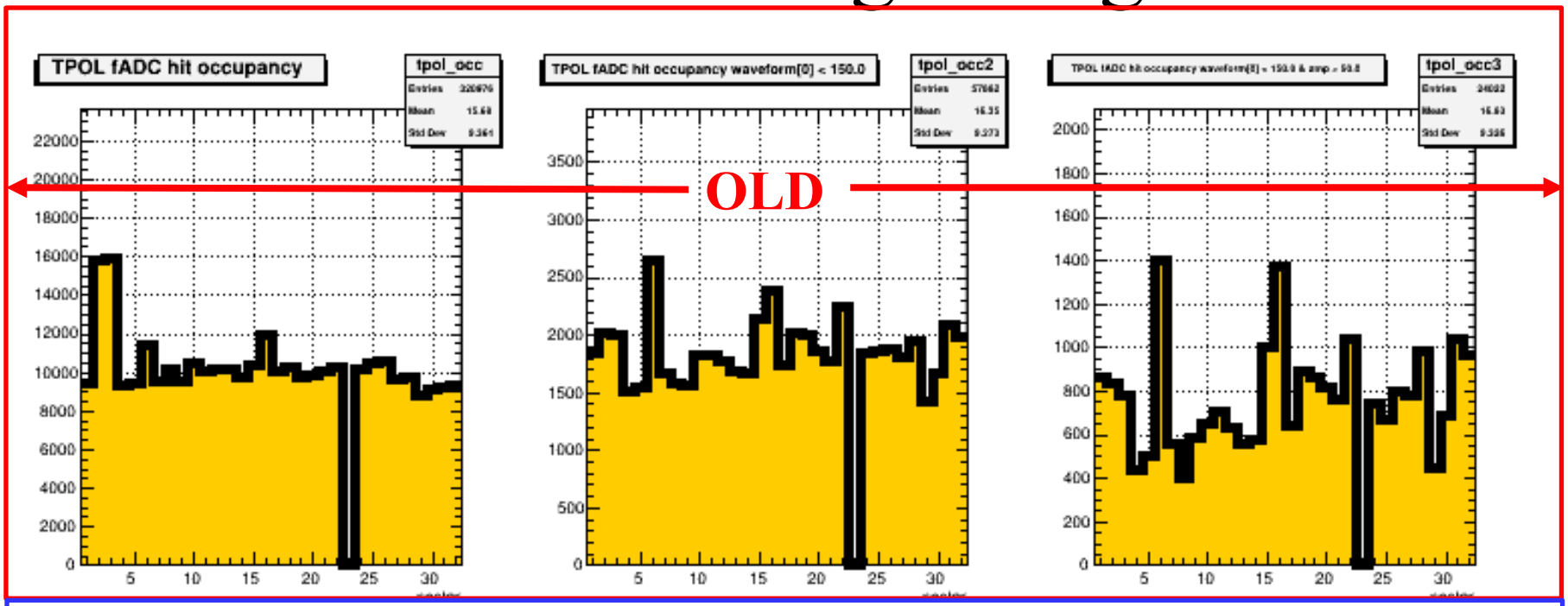
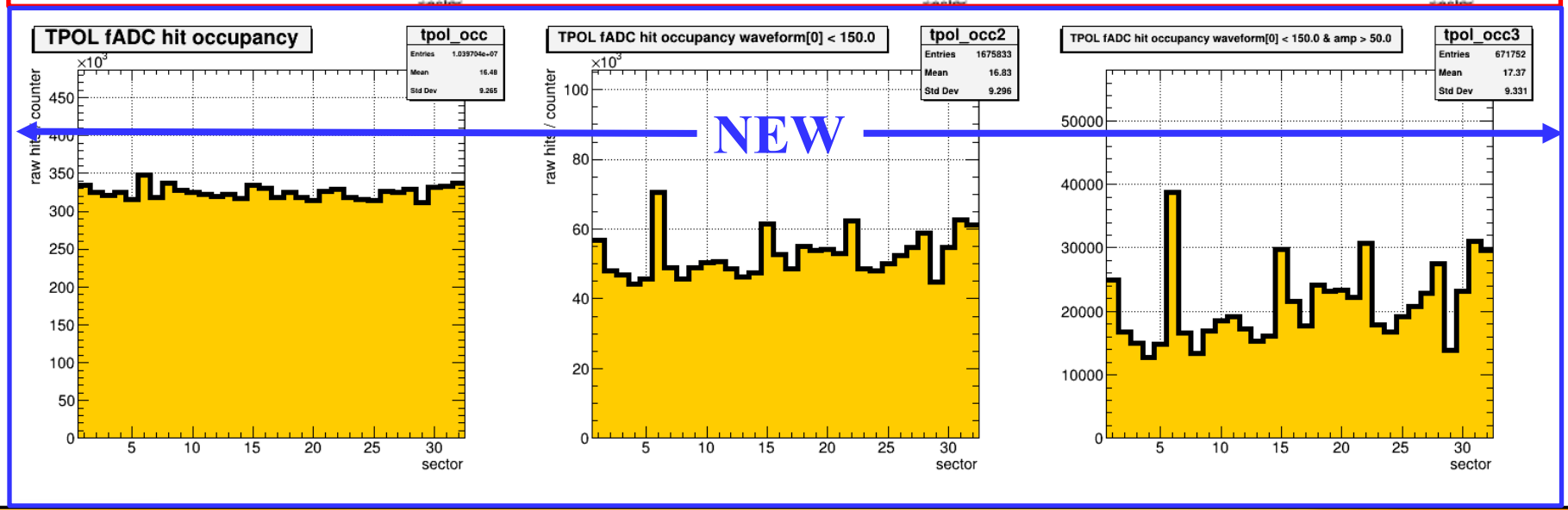
TPOL Update

TPOL monitoring histograms

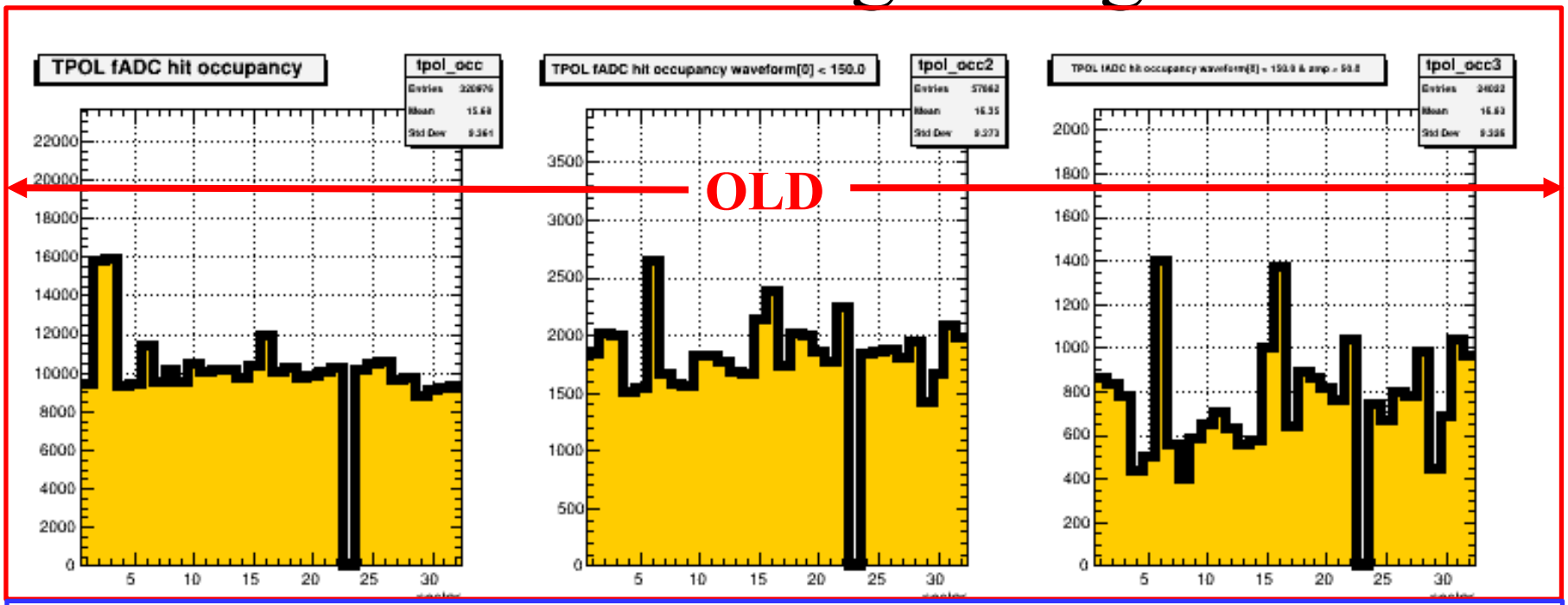


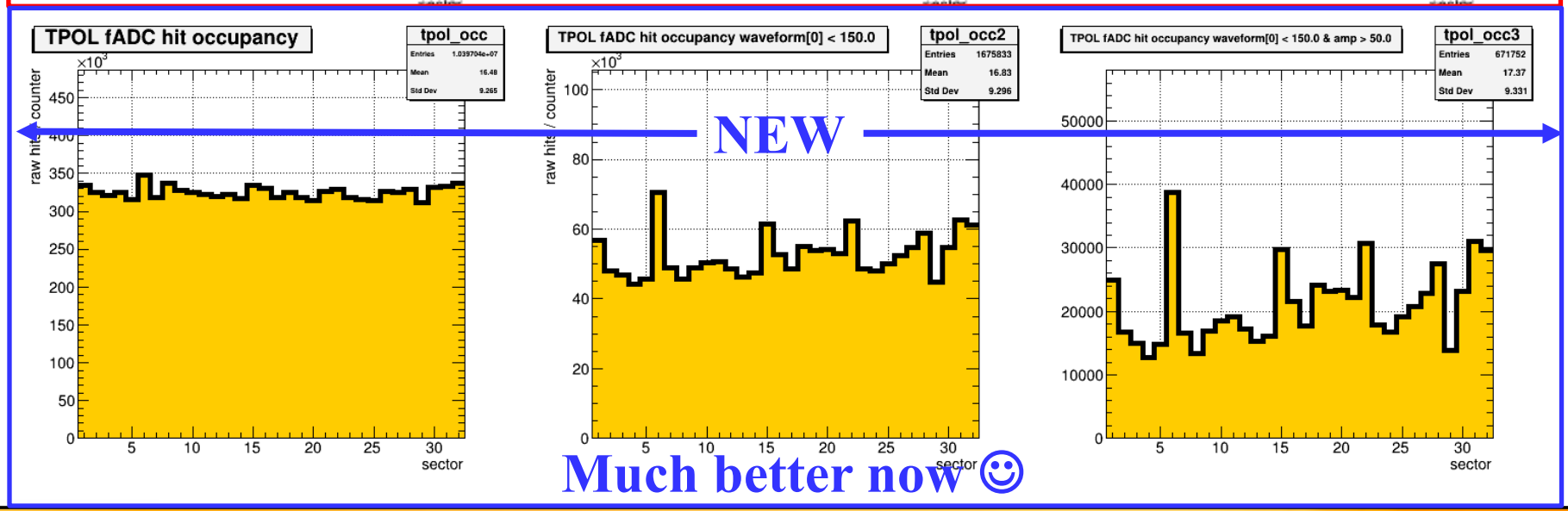
TPOL monitoring histograms





TPOL monitoring histograms

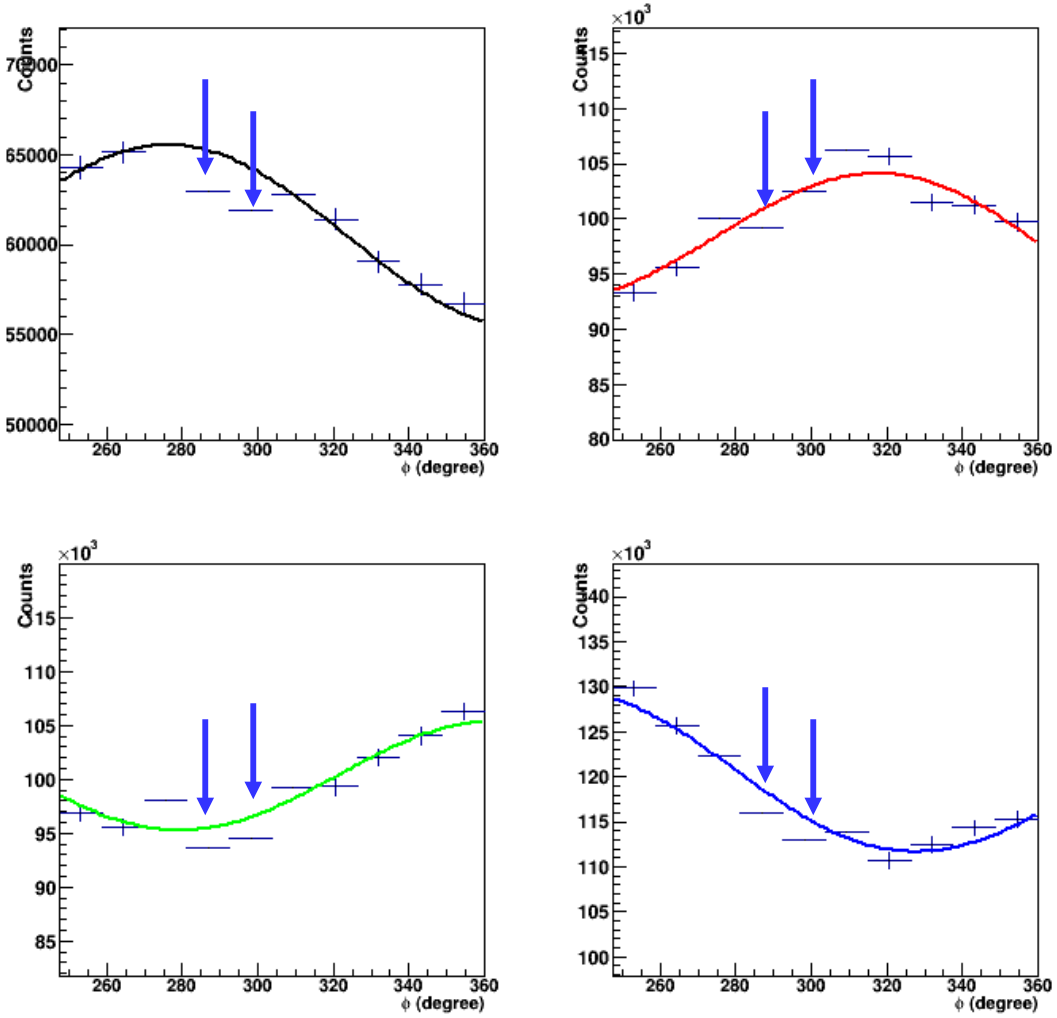




“Recovered” sectors

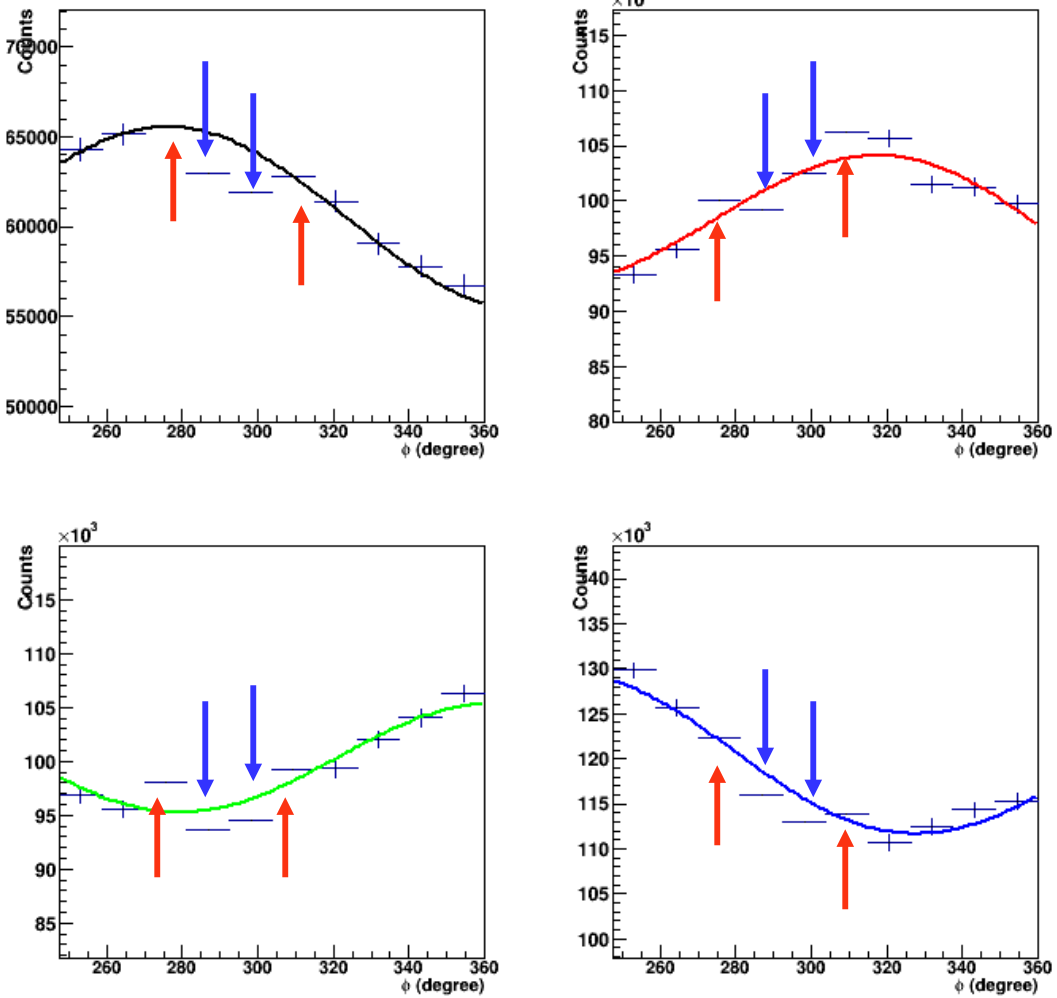
- Removed “recovered” sectors (and neighbors) in fit by setting error bars to zero

“Recovered” sectors



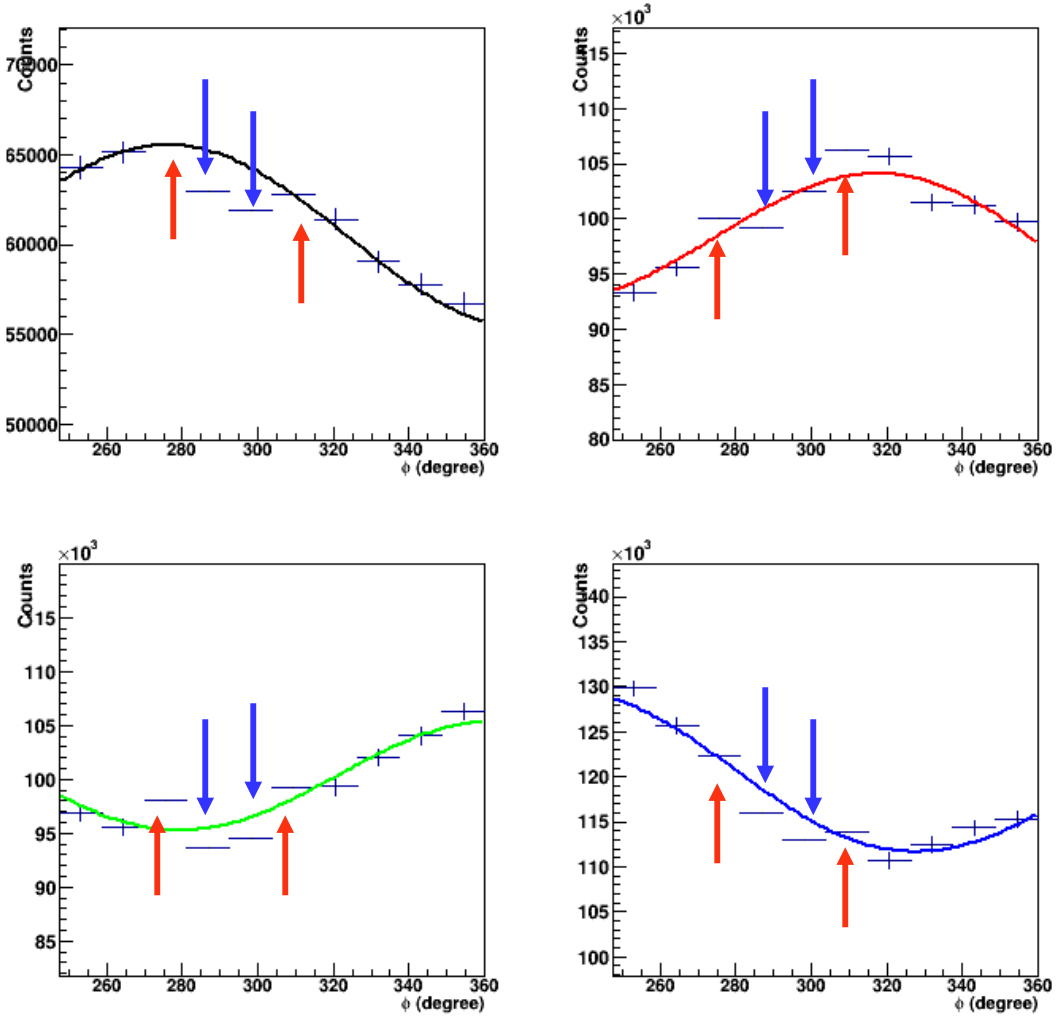
BLUE arrows : “recovered” sectors.

“Recovered” sectors



BLUE arrows : “recovered” sectors. **RED** arrows : neighbors

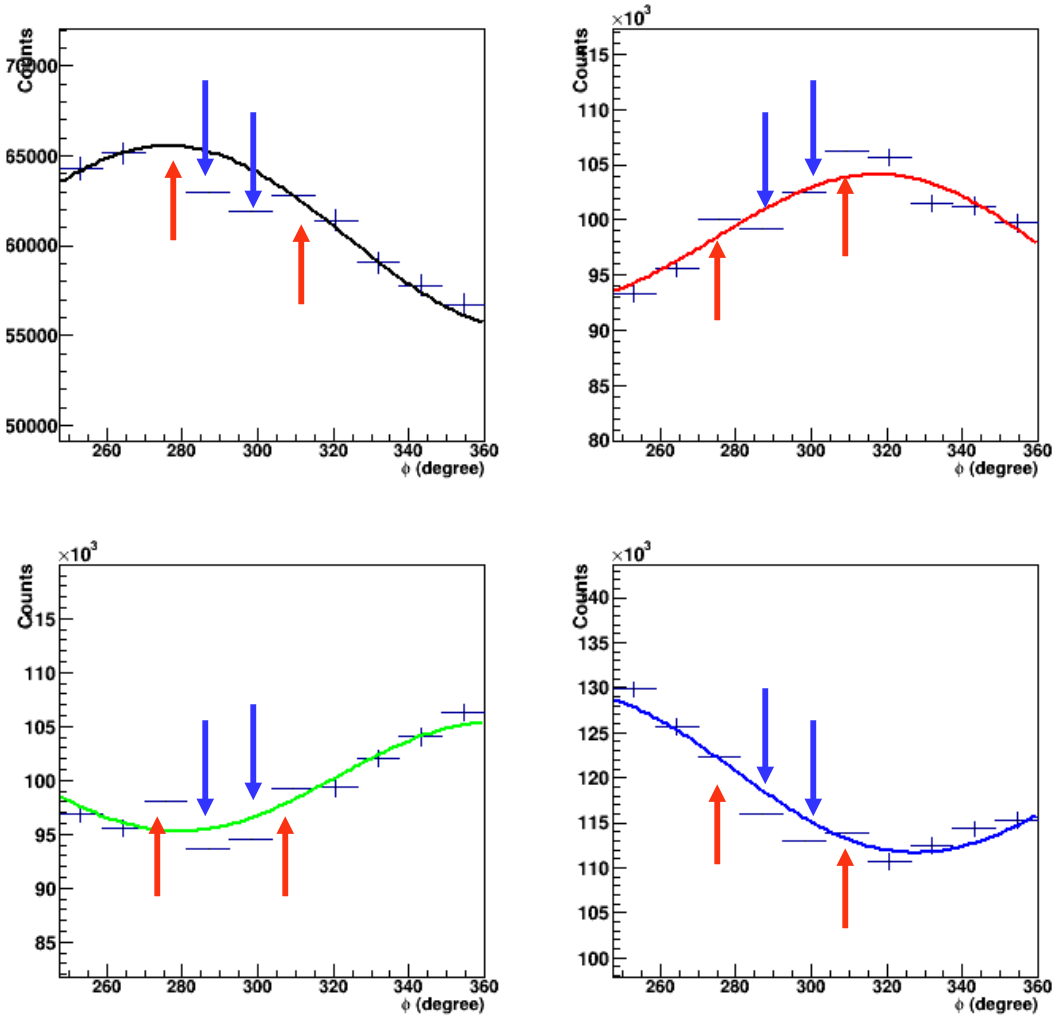
“Recovered” sectors



BLUE arrows : “recovered” sectors. **RED** arrows : neighbors

I do not trust the “recovered” or neighboring bins ☹

“Recovered” sectors



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I do not trust the “recovered” or neighboring bins ☹

Those bins are being removed from here on

Simultaneous fit versus individual fits

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Fit function: $A\,[1 - B\cos(2(\varphi-\varphi_o)) + C\cos(\varphi+\varphi_1)]$

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Asymmetry due to beam offset relative to TPOL center

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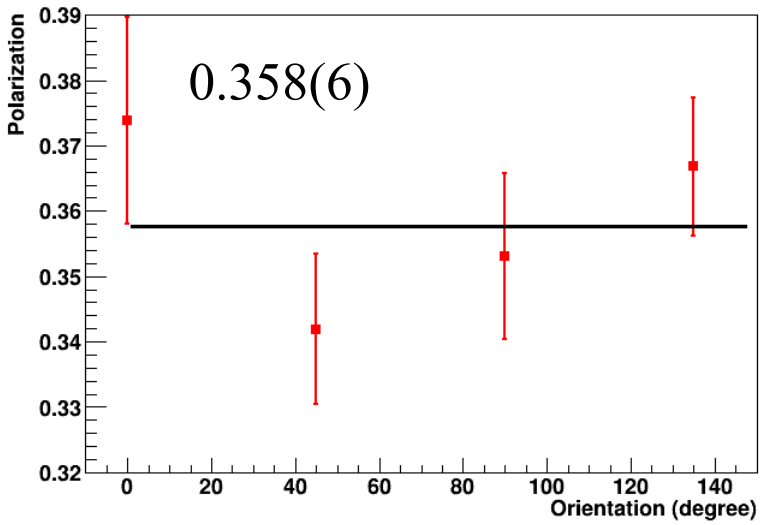
Determines polarization

Asymmetry due to beam offset relative to TPOL center

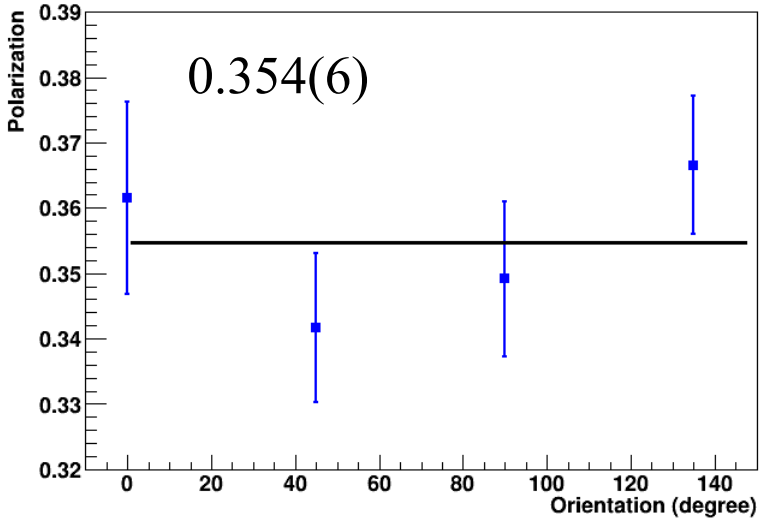
- For simultaneous fit, the parameter ***C*** is common to all orientations

Simultaneous fit versus individual fits

RED: Individual



BLUE: Simultaneous



- Polarization values are very similar
- The simultaneous fit results look a bit more consistent

Simultaneous fit versus individual fits

- Used $\rho\ P\Sigma$ values given by Alex on 2-15-2022

Orientation	rho Polarization
0	0.3301
45	0.3217
90	0.322
135	0.3367

Simultaneous fit versus individual fits

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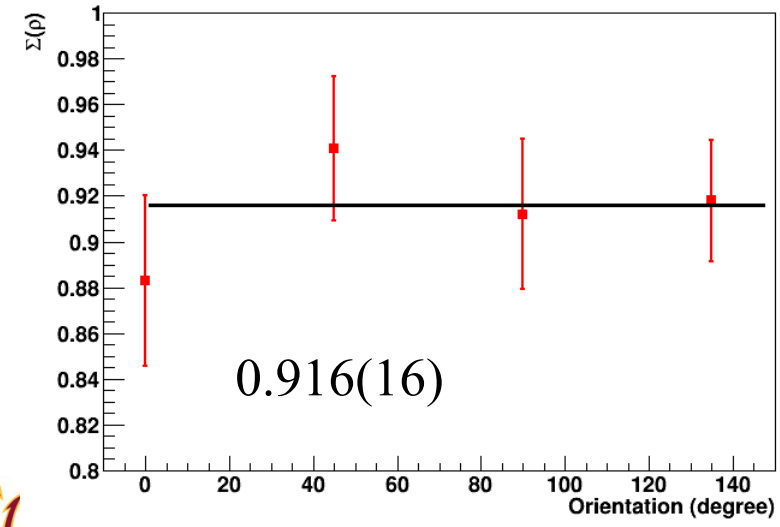

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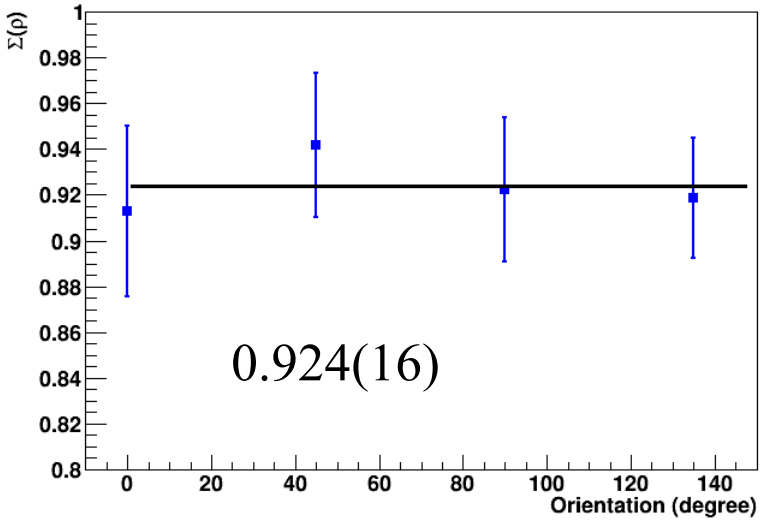

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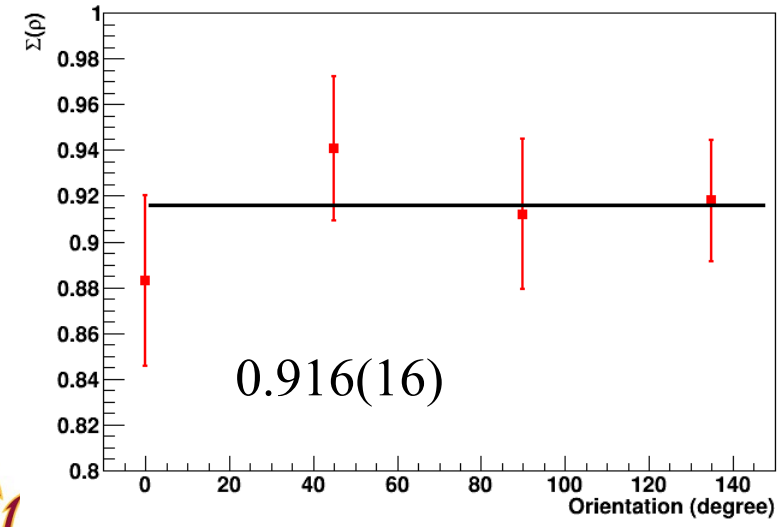
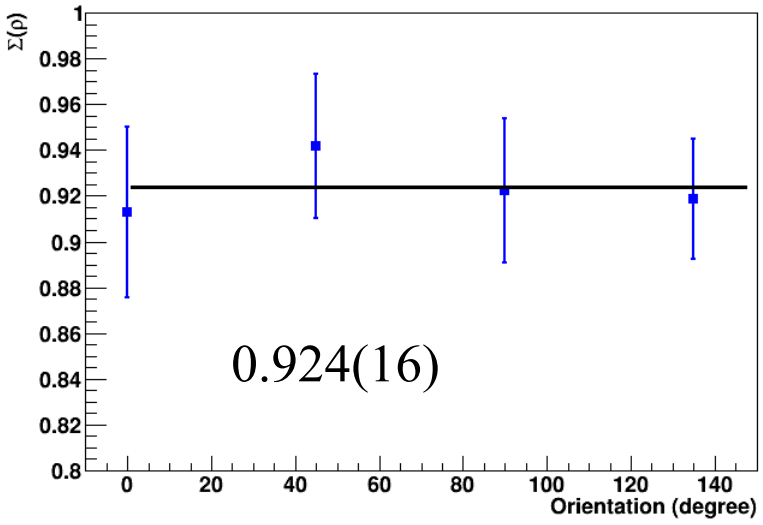


BLUE: Simultaneous



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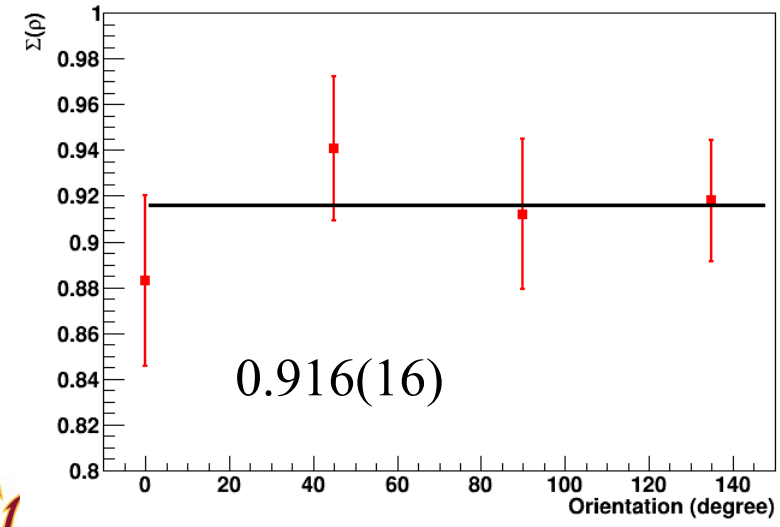

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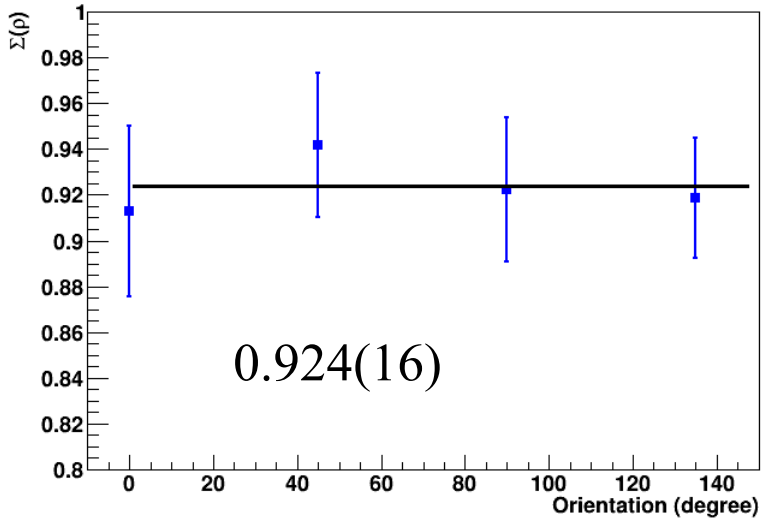

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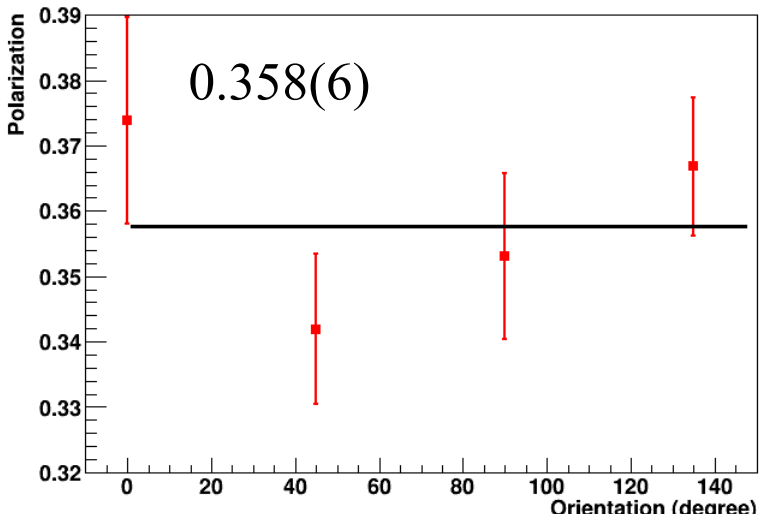

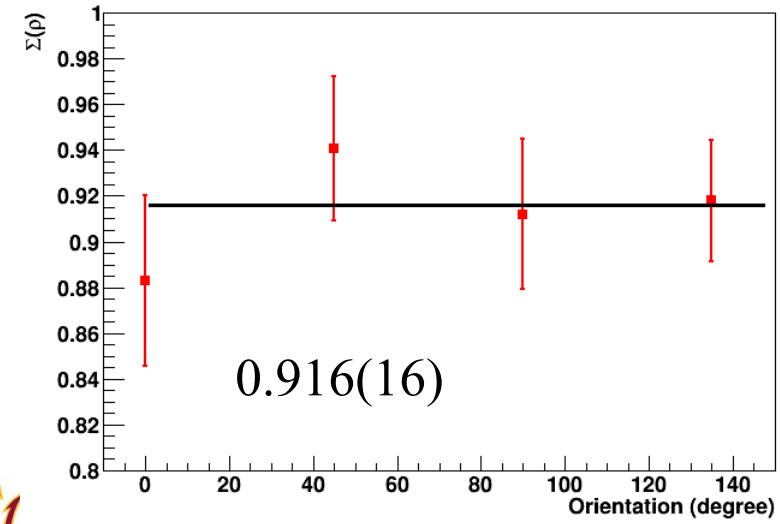

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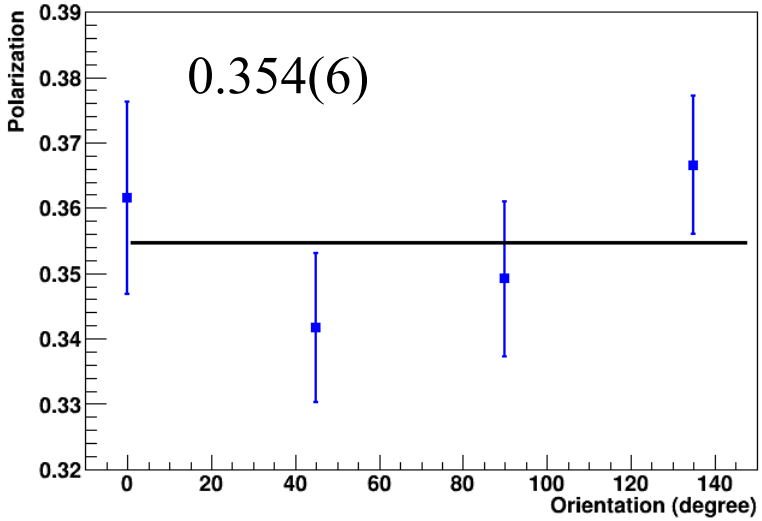

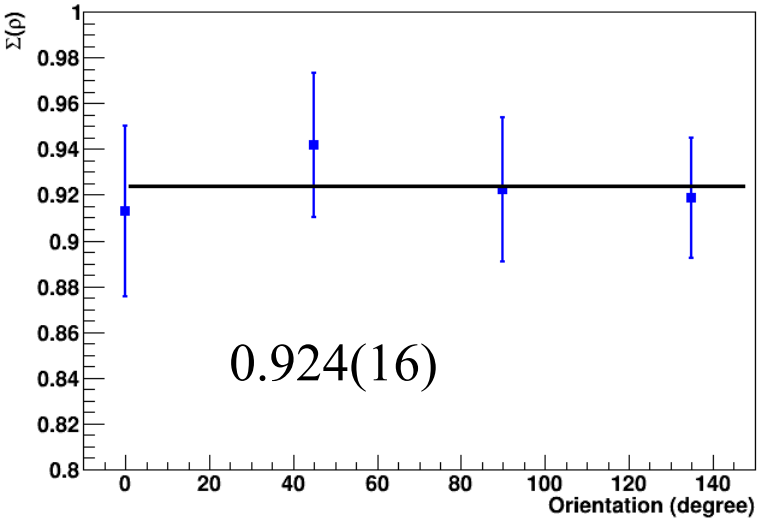

Title