

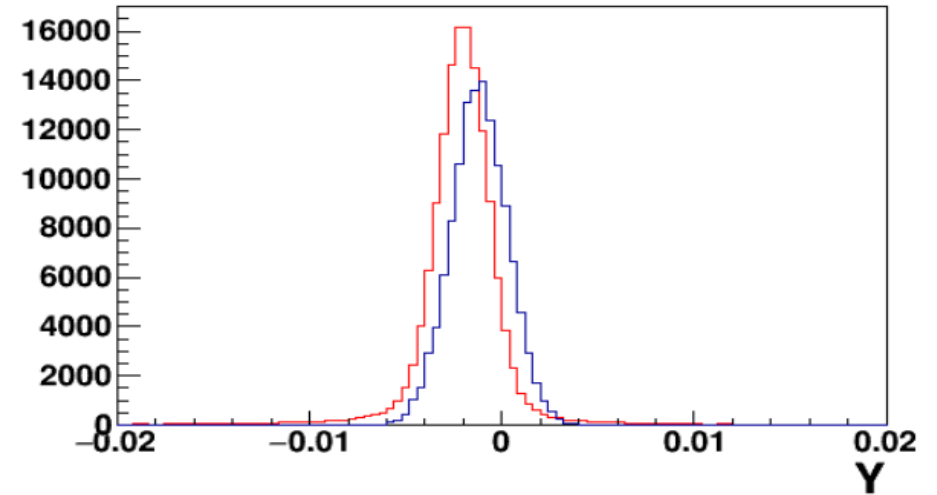
Ar Meeting

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VDC efficiency

- None zero track ratio: R1
 - Cut1: Trigger, calorimeter cut
 - $R1 = \frac{\#none\ zero\ track\ events}{\#sample\ events\ 1}$
- One track ratio: R2
 - Cut2: Trigger, calorimeter cut, acceptance cut
 - $R2 = \frac{\#(one\ track\ \&\&\ L.tr.tg_y\ within\ 5\sigma)events}{\#sample\ events\ 2}$
- Efficiency=R1*R2
- Result



Run#	730	731	739	740	747	748	755	756	763
R1(%)	99.86	99.96	99.93	99.93	99.93	99.94	99.93	99.94	99.94
R2(%)	95.90	95.24	95.24	95.43	95.27	95.29	95.14	95.00	95.05
E(%)	95.76	95.19	95.18	95.37	95.20	95.24	95.08	94.94	94.99

Systematic error from beam energy

Run#	E=2.222GeV	E=2.2215GeV	Difference(%)	E=2.2225GeV	Difference(%)	Total(%)
730	131409	128388	-2.30	130804	-0.46	2.34
731	178718	178505	-0.12	178293	-0.24	0.27
739	150711	150823	0.07	150353	-0.24	0.25
740	265366	265070	-0.11	264910	-0.17	0.20
747	175949	176086	0.08	175525	-0.24	0.25
748	158471	158592	0.08	158113	-0.23	0.24
755	166560	166556	0.00	166277	-0.17	0.17
756	157833	157822	-0.01	157597	-0.15	0.15
763	155220	155229	0.01	154997	-0.14	0.14

error

- Efficiency :E
- Stat error : Wilson score Interval gives [L,U]
- E is not in the middle of the interval
- Calculate $(L-E)/E$ and $(U-E)/E$
- Choose the larger one