

CDCTRG with ADC

-R&D is on-going to use ADC information for CDCTRG for BG rejection and possible counter measure of gain degradation

-Modification of 2D track requirement

✂adjustable with gain condition

- so far: 20 of 25 stereo layer hits without ADC
- new: 10-15(✂) of 25 stereo layer hits with ADC [10,400](✂)

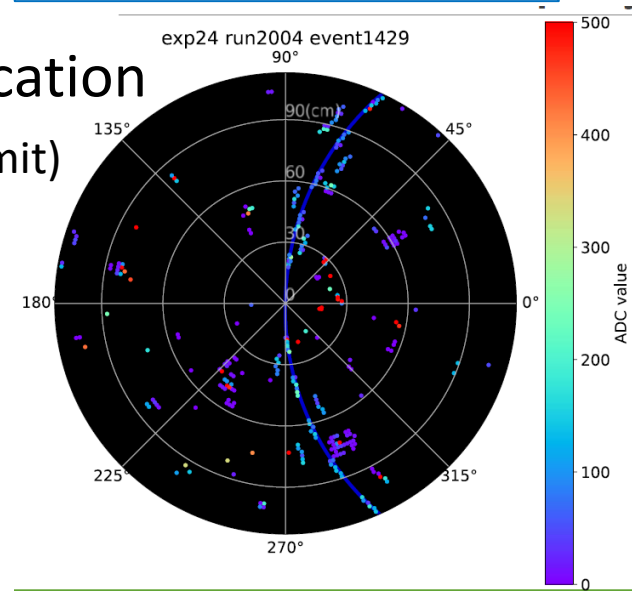
-Advantage:

- lower TDC threshold
- possibly improve eff. and BG rejection

-Disadvantage:

- latency increase
- CDCFE/CDCTRG FW modification
- degradate eventT0 resolution (CDCFE bandwidth limit)

Event display with ADC



Simulated rate and efficiency with 2022b

	hit threshold	event rate of #2D track>0	dimuon efficiency
original 2D	20	3.4kHz	0.946
new 2D	15	2.4kHz	0.937