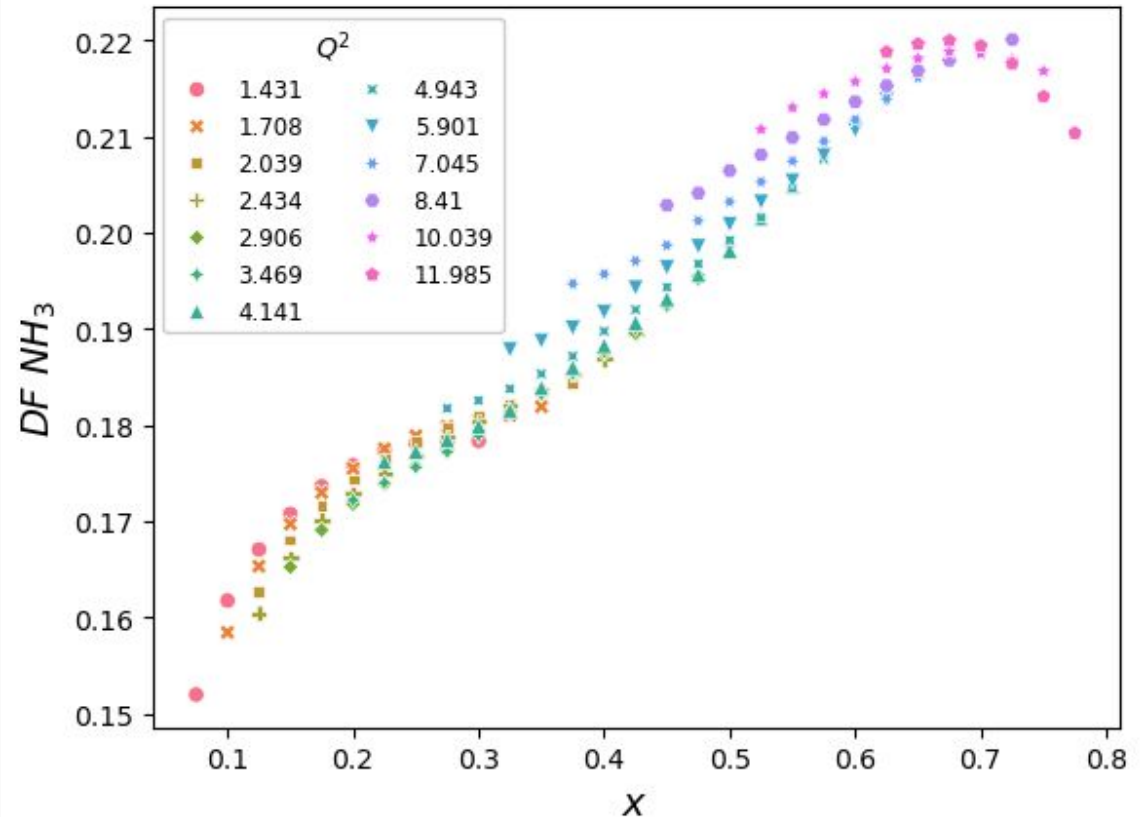# RG-C - Inclusive Update

17 January

Dilution Factor Model
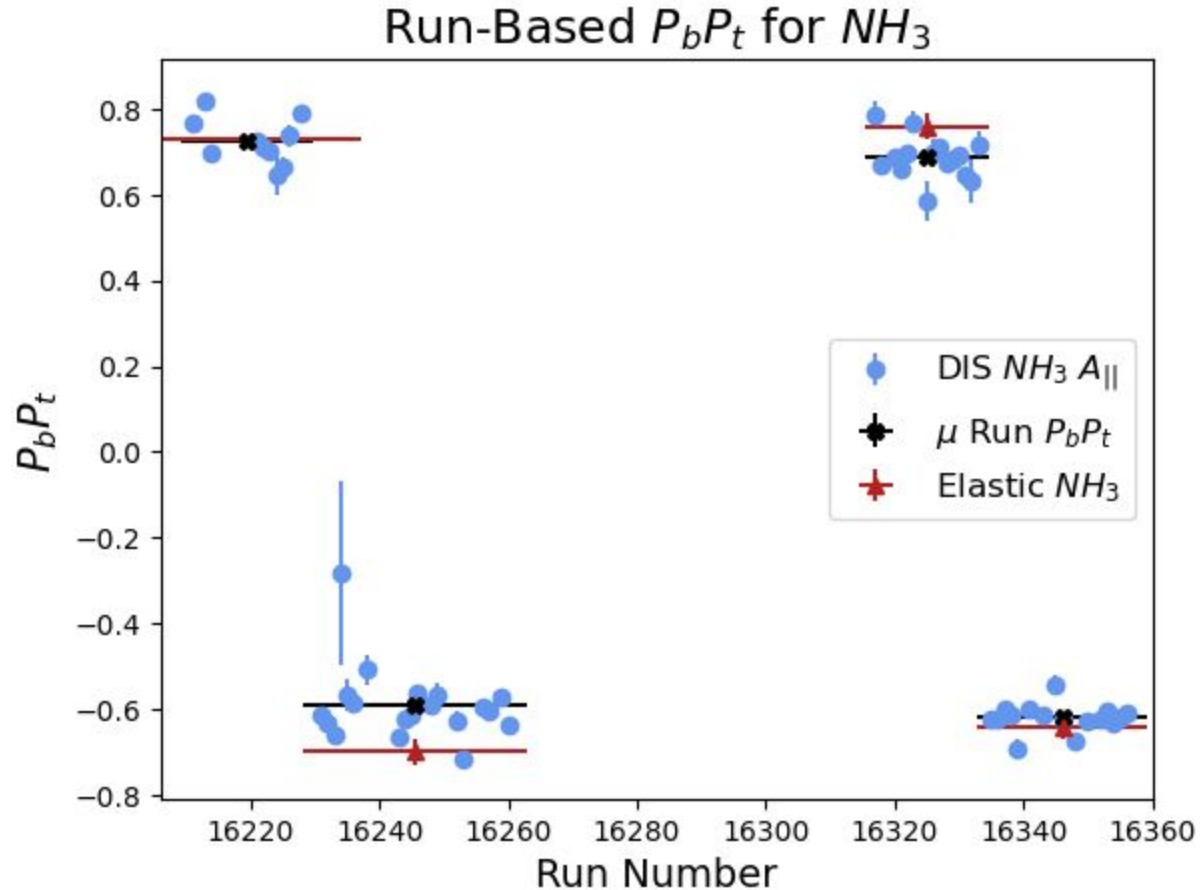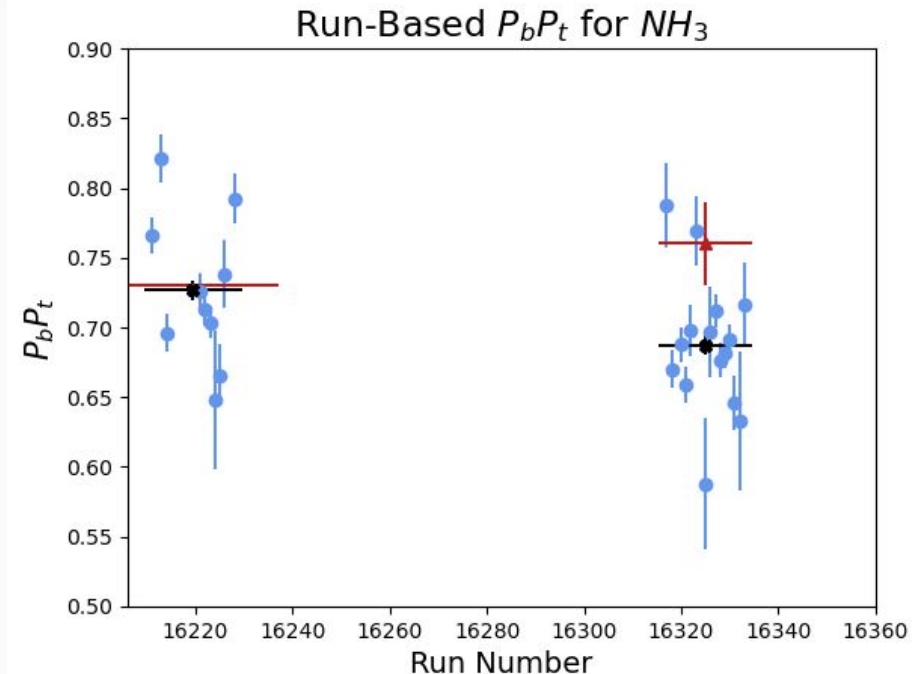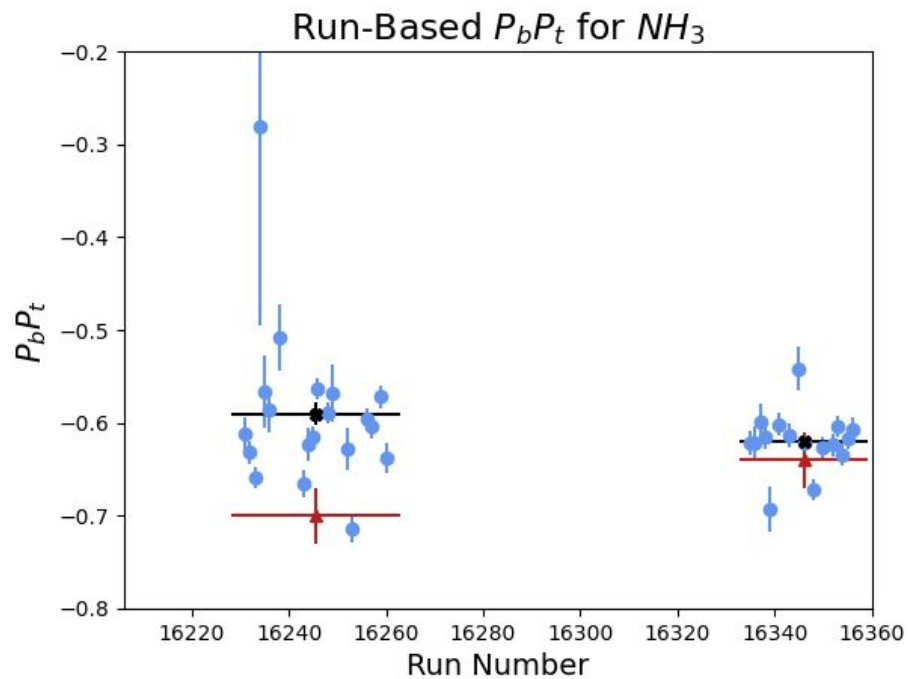
❖ Results from December
❖ PF from "Epoch 2"

Run Based PbPt

❖ Using QADB cuts
❖ Using one set of DF values
❖ Same eqn as elastics

```
QADB* qa = new QADB("latest");
qa->SetMaskBit("TotalOutlier",true);
qa->SetMaskBit("TerminalOutlier",true);
qa->SetMaskBit("MarginalOutlier",true);
qa->SetMaskBit("SectorLoss",true);
qa->SetMaskBit("LowLiveTime",true);
```


Run-Based P_bP_t for NH_3

Run Based PbPt

❖ Zoomed in for pos or neg

Run-Based $P_b P_t$ for NH_3

Run-Based $P_b P_t$ for NH_3

Running Inclusive MC

❖ Using web interface - clasdis

C L A S 1 2   M o n t e - C a r l o   J o b   S u b m i s s i o n   P o r t a l   (T e s t   V e r s i o n)

Logged in as dwupton

Configuration	rgc_summer2022 ▾	
Versions (see README)	gemc/5.10 coatjava/10.0.9 ▾	
MC Gen Versions (see README) Consider testing the generators	3.12 ▾	
Magnetic Fields	tor-1.00_sol-1.00 ▾	
Vertex	☑ z: adjust for target position and semi-length -3.0*cm, 2.5*cm ☑ x/y: smear beamspot 0.0*mm, 0.0*mm, 0.0*mm, 0.0*mm, 0*deg ☑ x/y: raster 0.0*cm, 0.0*cm ◉ Ignore Generator Vertex ○ Relative to Generator Vertex	
Generator	clasdis ▾	clasdis options
Generator Options		
	Once you've chosen the generator, review the linked documentation and insert the desired options above. Do not utilize the following options, as they are automatically included: --docker, output file name, --trig .	
Number of Events per Job	10000	
Number of Jobs	100	
Total Number of Events	1 M	
Background Merging	No ▾	
String Identifier (optional)	CLASDIS_NoBkg	
	Submit	

Running Inclusive MC

❖ Using web interface - inclusive-dis-rad

CLAS12 Monte-Carlo Job Submission Portal (Test Version)

Logged in as dwupton

Configuration	rgc_summer2022 ▾	
Versions (see **README**)	gemc/5.10 coatjava/10.0.9 ▾	
MC Gen Versions (see **README**) Consider **testing the generators**	3.12 ▾	
Magnetic Fields	tor-1.00_sol-1.00 ▾	
Vertex	☑ z: adjust for target position and semi-length -3.0*cm, 2.5*cm ☑ x/y: smear beamspot 0.0*mm, 0.0*mm, 0.0*mm, 0.0*mm, 0*deg ☑ x/y: raster 0.0*cm, 0.0*cm ◉ Ignore Generator Vertex ◯ Relative to Generator Vertex	
Generator	inclusive-dis-rad ▾	
Generator Options		**disrad options**
	Once you've chosen the generator, review the linked documentation and insert the desired options above. Do not utilize the following options, as they are automatically included: *--docker, output file name, --trig* .	
Number of Events per Job	10000	
Number of Jobs	100	
Total Number of Events	1 M	
Background Merging	No ▾	
String Identifier (optional)	InclusiveDISRad_NoBkg	
	Submit	

First Look at Inclusive MC

- ❖ Using DIS generators with 100k events per generator
- ❖ Vz needs to be aligned

MC-Data Comparison

Legend:
- MC - Inc. DIS Rad
- MC - CLAS DIS
- Data - 16317-16320