

자기 소개

आत्म परिचय

自我介绍

自己紹介

o cebe

Ciprian Gal

சுய
அறிமுகம்

Intro Talk

selbst
Einführung

Introducere

خود کا تعارف

Biographical info



- Journey of study from Bucharest to Bremen to Stony Brook
- Joined PHENIX in 2010 (the year of the HBD)

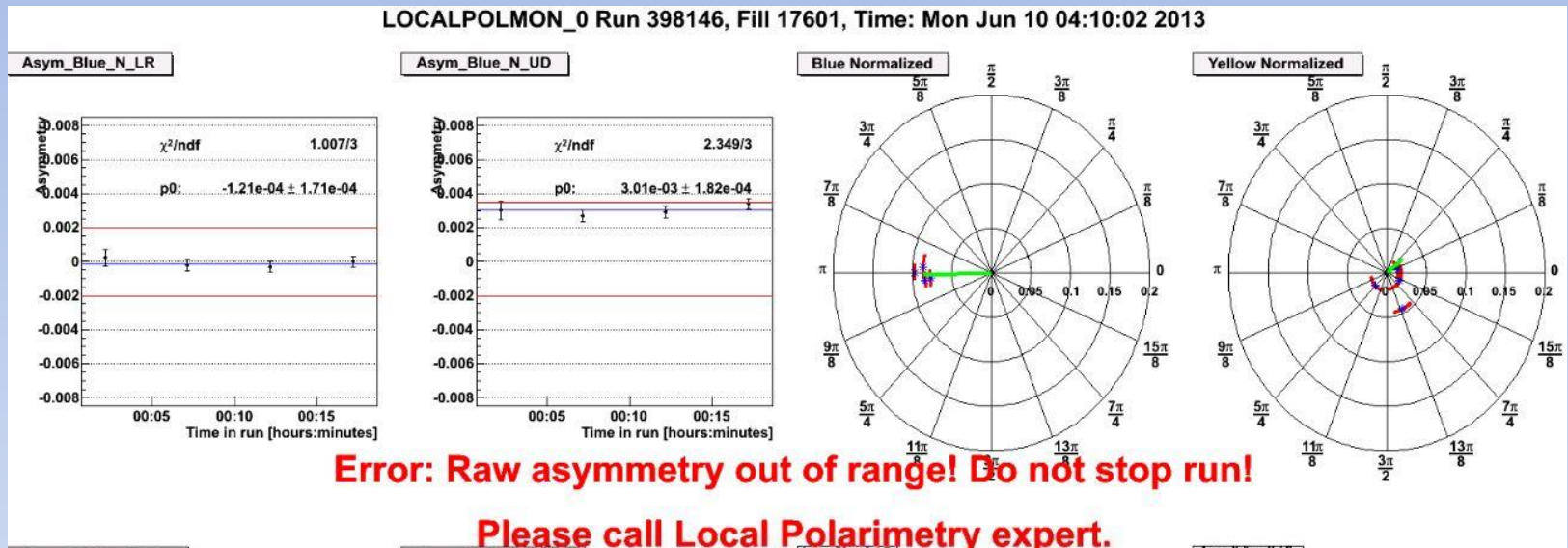
Things I have broken since I started with PHENIX

Things I have broken since I started with PHENIX -> the ZDC/LPOL



- One of the two global detectors for PHENIX
- During spin running it's the Local Polarimetry detector

Things I have broken since I started with PHENIX -> the ZDC/LPOL



- Local Polarimetry now has an online component through it's Online monitoring module
- We can monitor the spin direction and transverse components in real time

Things I have broken since I started with PHENIX -> the SpinDB

- Over the years I have filled, QAed and messed around with the crossingshift calibration
- Out of all the variables here the most important is: runnumber

```
File Edit View Search Terminal Help
[phnxlpol@va002 ~]$ psql spin
psql (8.4.1)
Type "help" for help.

spin=> \d spin
          Column          |          Table "public.spin"          |
                          |          Type                          |          Modifiers          |
-----+-----+-----+-----+-----+-----+-----+-----+-----+
runnumber                 | integer                                | not null                   |
fillnumber                | integer                                |                             |
badrunqa                  | integer                                |                             |
crossingshift             | integer                                |                             |
polarblue                 | real[]                                 |                             |
polarblueerror            | real[]                                 |                             |
polaryellow               | real[]                                 |                             |
polaryellowerror          | real[]                                 |                             |
spinpatternblue           | integer[]                              |                             |
spinpatternyellow         | integer[]                              |                             |
bbcvertexcut              | bigint[]                               |                             |
bbcwithoutcut             | bigint[]                               |                             |
zdcnarrow                 | bigint[]                               |                             |
zdcwide                   | bigint[]                               |                             |
badbunchqa                | integer[]                              |                             |
transversxblue            | real                                   |                             |
transversxblueerr         | real                                   |                             |
transversyblue            | real                                   |                             |
transversyblueerr         | real                                   |                             |
transversxyyellow         | real                                   |                             |
transversxyyellowerr      | real                                   |                             |
transversyyellow          | real                                   |                             |
transversyyellowerr       | real                                   |                             |
qa_level                  | integer                                | not null default 0        |
timestamp                 | timestamp without time zone           |                             |
polarblueerrorsys         | real[]                                 |                             |
polaryellowerrorsys       | real[]                                 |                             |
Indexes:
    "spin_pkey" PRIMARY KEY, btree (runnumber, qa_level)

spin=> █
```

Things I have broken since I started with PHENIX -> the SpinDB

- Over the years I have filled, QAed and messed around with the crossingshift calibration
- Out of all the variables here the most important is: runnumber .. and qa_level

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```

Column	Table "public.spin" Type	Modifiers
runnumber	integer	not null
fillnumber	integer	
badrunqa	integer	
crossingshift	integer	
polarblue	real[]	
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polaryellow	real[]	
polaryellowerror	real[]	
spinpatternblue	integer[]	
spinpatternyellow	integer[]	
bbcvertexcut	bigint[]	
bbcwithoutcut	bigint[]	
zdcnarrow	bigint[]	
zdcwide	bigint[]	
badbunchqa	integer[]	
transversxblue	real	
transversxblueerr	real	
transversyblue	real	
transversyblueerr	real	
transversxyyellow	real	
transversxyyellowerr	real	
transversyyellow	real	
transversyyellowerr	real	
qa_level	integer	not null default 0
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polarblueerrorsys	real[]	
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spin=> █
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Things I have broken since I started with PHENIX -> the SpinDB

- Over the years I have filled, QAed and messed around with the crossingshift calibration
- Out of all the variables here the two most important are: runnumber and qa_level

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runnumber                 | integer                                | not null                   |
fillnumber                | integer                                |                             |
badrunqa                  | integer                                |                             |
crossingshift             | integer                                |                             |
polarblue                 | real[]                                 |                             |
polarblueerror            | real[]                                 |                             |
polaryellow               | real[]                                 |                             |
polaryellowerror          | real[]                                 |                             |
spinpatternblue           | integer[]                              |                             |
spinpatternyellow         | integer[]                              |                             |
bbcvertexcut              | bigint[]                               |                             |
bbcwithoutcut             | bigint[]                               |                             |
zdcnarrow                 | bigint[]                               |                             |
zdcwide                   | bigint[]                               |                             |
badbunchqa                | integer[]                              |                             |
transversxblue            | real                                   |                             |
transversxblueerr         | real                                   |                             |
transversyblue            | real                                   |                             |
transversyblueerr         | real                                   |                             |
transversxyyellow         | real                                   |                             |
transversxyyellowerr      | real                                   |                             |
transversyyellow          | real                                   |                             |
transversyyellowerr       | real                                   |                             |
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Things I have broken since I started with PHENIX -> the SpinDB

- Over the years I have filled, QAed and messed around with the crossingshift calibration
- Out of all the variables here the two most important are: runnumber and qa_level .. and spinpattern

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transversyblueerr	real	
transversxyellow	real	
transversxyellowerr	real	
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transversyyellowerr	real	
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```
Indexes:
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spin=> █
```

Things I have broken since I started with PHENIX -> the SpinDB

- Over the years I have filled, QAed and messed around with the crossingshift calibration
- Out of all the variables here the three most important are: runnumber and qa_level and spinpattern

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Indexes:
    "spin_pkey" PRIMARY KEY, btree (runnumber, qa_level)

spin=> █
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- Over the years I have filled, QAed and messed around with the crossingshift calibration
- Out of all the variables here the three most important are: runnumber and qa_level and spinpattern .. and polization

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Indexes:
    "spin_pkey" PRIMARY KEY, btree (runnumber, qa_level)

spin=> █
```

Things I have broken since I started with PHENIX -> the SpinDB

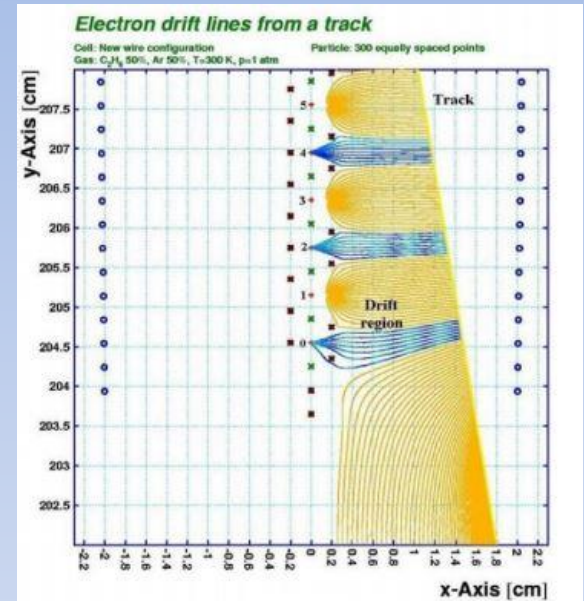
- Over the years I have filled, QAed and messed around with the crossingshift calibration
- Amongst these variables are such elements as runnumber, qa_level, spinpattern ...

```
File Edit View Search Terminal Help
[phnxlpol@va002 ~]$ psql spin
psql (8.4.1)
Type "help" for help.

spin=> \d spin
          Column          |          Table "public.spin"          |
                           |          Type                          |          Modifiers          |
-----+-----+-----+-----+-----+-----+-----+-----+
runnumber                | integer                                |                             |
fillnumber               | integer                                |                             |
badrunqa                 | integer                                |                             |
crossingshift            | integer                                |                             |
polarblue                | real[]                                 |                             |
polarblueerror           | real[]                                 |                             |
polaryellow              | real[]                                 |                             |
polaryellowerror         | real[]                                 |                             |
spinpatternblue          | integer[]                              |                             |
spinpatternyellow        | integer[]                              |                             |
bbcvertexcut             | bigint[]                               |                             |
bbcwithoutcut            | bigint[]                               |                             |
zdcnarrow                | bigint[]                               |                             |
zdcwide                  | bigint[]                               |                             |
badbunchqa               | integer[]                              |                             |
transversxblue           | real                                    |                             |
transversxblueerr        | real                                    |                             |
transversyblue           | real                                    |                             |
transversyblueerr        | real                                    |                             |
transversxyyellow        | real                                    |                             |
transversxyyellowerr     | real                                    |                             |
transversyyyellow        | real                                    |                             |
transversyyyellowerr     | real                                    |                             |
qa_level                 | integer                                | not null default 0        |
timestamp                | timestamp without time zone           |                             |
polarblueerrorsys        | real[]                                 |                             |
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Indexes:
    "spin_pkey" PRIMARY KEY, btree (runnumber, qa_level)

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```

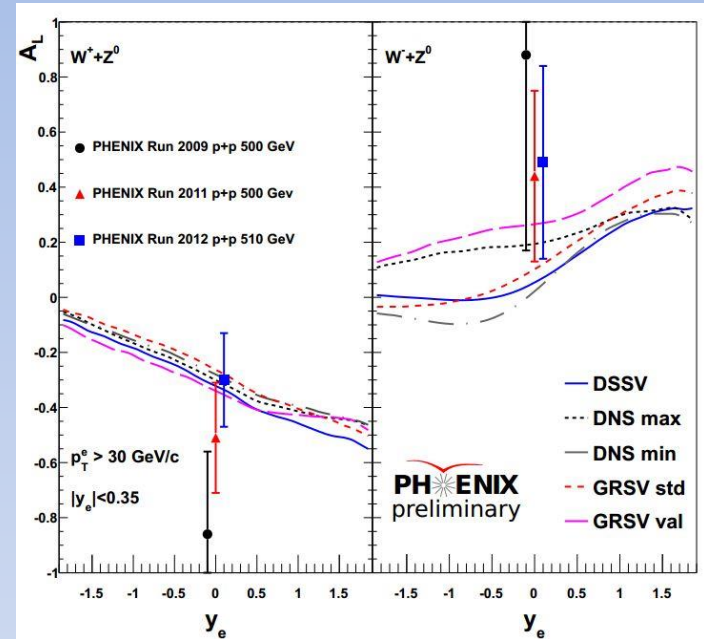
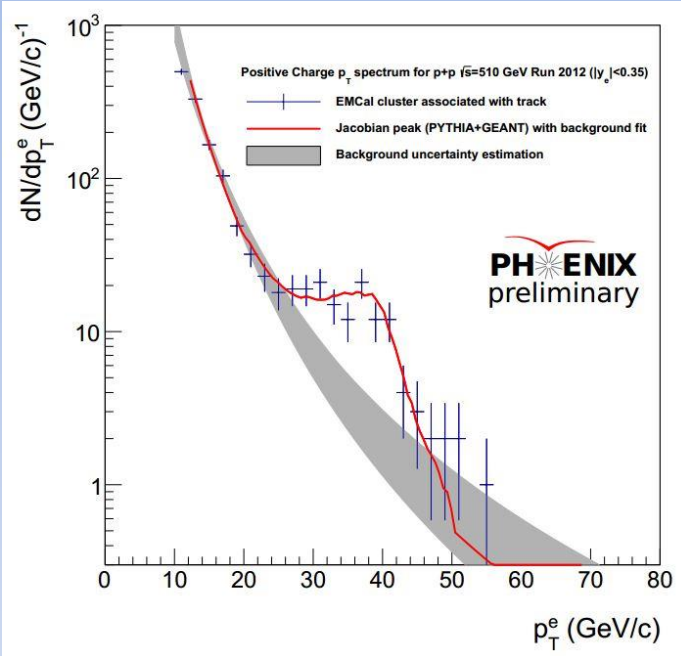
Things I have broken since I started with PHENIX -> the EMCa/DC



- EMCa/DC are the two main central arm detectors
- I “completed” the Run12 EMCa energy calibration and some work on the Run11 510 DC beam offset

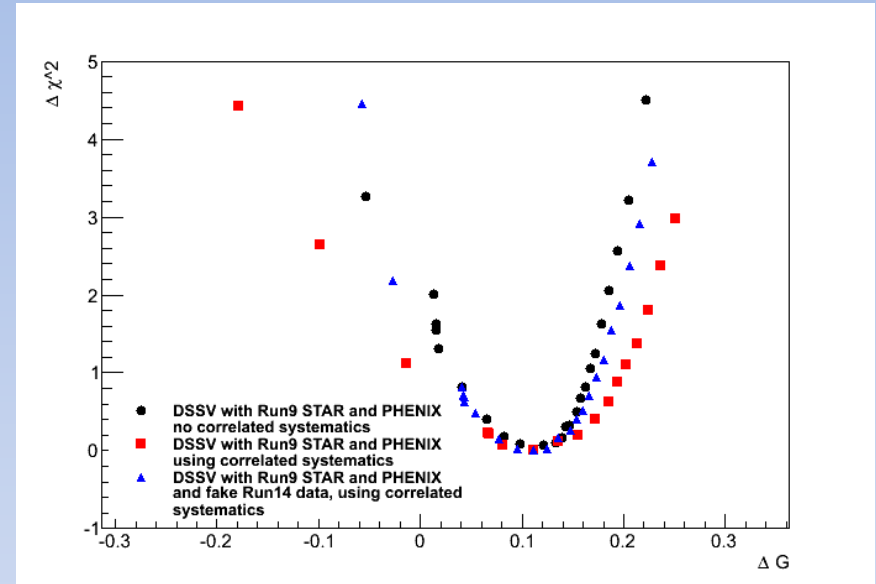
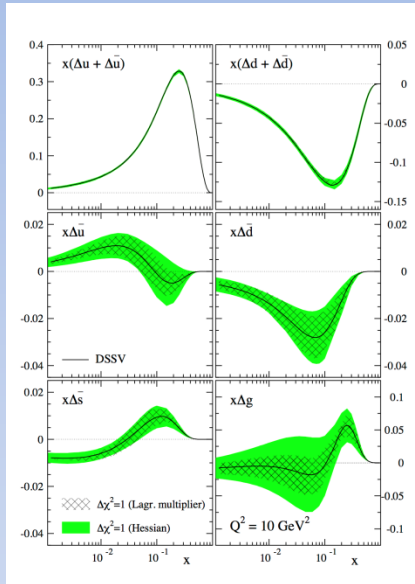
Things I am trying to break now

-> W2e Analysis



- Selecting for the W to electron decay we can get a very distinctive Jacobian peak (if we can get the background to leave us alone)
- For a high level signal to background region we can calculate single spin asymmetries which constrain theoretical predictions on the Parton Distribution Functions of the u bar and d bar anti-quarks

Things I am trying to break now -> Global Analysis



- Improve the analysis framework developed by DSSV by adding proper handling of the systematic uncertainties
- Use it to help us gauge the impact of further data on the world knowledge of ΔG and PDFs