

Code QA - Update I

IFF@500 GeV GPC

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Preparations

- Checked out the code:

`cvs co -d psn0661 offline/paper/psn0661`

- Followed instruction on the analysis note page7.

https://drupal.star.bnl.gov/STAR/system/files/analysis_note_v7_0.pdf

1. Submit `/star/institutions/iucf/skoby/dihadron/run11pp500.xml`, which will process `/star/institutions/iucf/skoby/dihadron/run11pp500.C`
2. To run over the output in (1) submit `/star/u/skoby/iff500 code/Analysis.xml`, which will process `submitScript.C` and `St-Root/Iff2012/Iff2012.cc`.
3. hadd the output from (2) into one file.
4. From `/star/u/skoby/iff500 code/` and using the file in (3), run `asymmetryVsPt.C`, `asymmetryVsMinv.C`, and `asymmetryVsEta.C` to get the multi-panel result plots

In analysis note, path name should change!

First step

Submit run11pp500.xml which process “run11pp500.C”

- The script, “run11pp500.xml” submit jobs to process MuDsts located at HPSS. All seems OK with the script except,
 - Many Jobs killed/crashed during each submission / resubmission [I resubmitted 5 times to get all the jobs output (except 2 jobs,(32 daq files)).
 - Total events I processed (645 M)

Adding usage options like in the script might fix this!

```
<ResourceUsage>  
  <StorageSpace>  
    <MinStorage>20</MinStorage>  
  </StorageSpace>  
</ResourceUsage>
```

- The code, “run11pp500.C” has following two lines which needed to update before submitting jobs !

```
//open database connection for spin configuration  
const char* database = "mysql://dbbak.starp.bnl.gov:3410/RunLog?timeout=60";  
const char* user = "devika";
```

I would add two comments at the top of the code, indicating :

// change the user name to your name in line. // include the proper database address according to the online server port map <https://drupal.star.bnl.gov/STAR/comp/db/onlineedb/online-server-port-map>

Second step

Run over the output in (1) by submitting “Analysis.xml” which will process submitScript.C and StRoot/Iff2012/Iff2012.cc.

- The script, “Analysis.xml” process over the output rootfiles from step (1). All seems OK except that code and script had to be in the same directory.

```
<SandBox>
  <Package>
    <File>file:./submitScript.C</File>
    <File>file:./StRoot/*/*</File>
    <File>file:./sl64_gcc482/*/*</File>
  </Package>
</SandBox>
```

- If I give full path name to the code in the sandbox code gave me errors

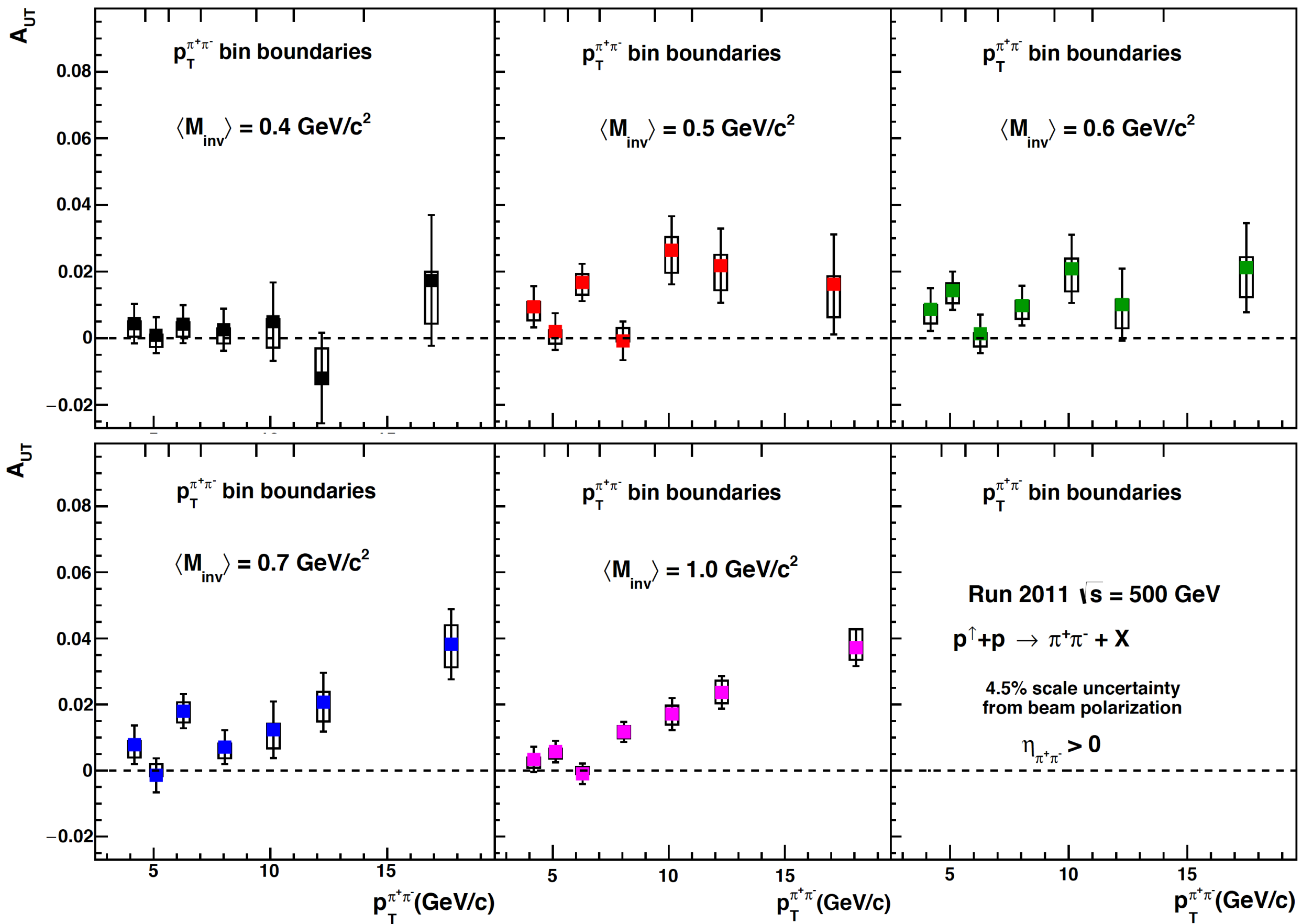
```
Error in <TUnixSystem::DynamicPathName>: Iff2011[.so | .dll | .dylib | .sl | .dl | .a] does not exist
in .sl64_gcc482/lib:/afs/rhic.bnl.gov/star/packages/DEV/.sl64_gcc482/lib:/afs/
s/rhic.bnl.gov/star/R00T/5.34.30/.sl64_gcc482/rootdeb/lib:/opt/star/sl64_gcc482/qt4.8/lib:/opt/star/
sl64_gcc482/lib:/afs/rhic.bnl.gov/star/R00T/Xrootd/prod/.sl64_gcc482/lib:..sl\
64_gcc482/lib:/afs/rhic.bnl.gov/star/packages/DEV/.sl64_gcc482/lib:/afs/rhic.bnl.gov/star/R00T/
5.34.30/.sl64_gcc482/rootdeb/lib:/opt/star/sl64_gcc482/qt4.8/lib:/opt/star/sl64_gcc\
482/lib:/afs/rhic.bnl.gov/star/R00T/Xrootd/prod/.sl64_gcc482/lib:/afs/rhic.bnl.gov/star/R00T/
34/5.34.30a_2/.sl64_gcc482/rootdeb/lib:/afs/rhic.bnl.gov/star/R00T/34/5.34.30a_2/.sl6\
4_gcc482/rootdeb/cint/cint/stl
Error: Can't call Iff2011::setHome(home) in current scope submitScript.C:13:
Possible candidates are...
(in Iff2011)
*** Interpreter error recovered ***
foreach: No match.
```

Third / Fourth Steps

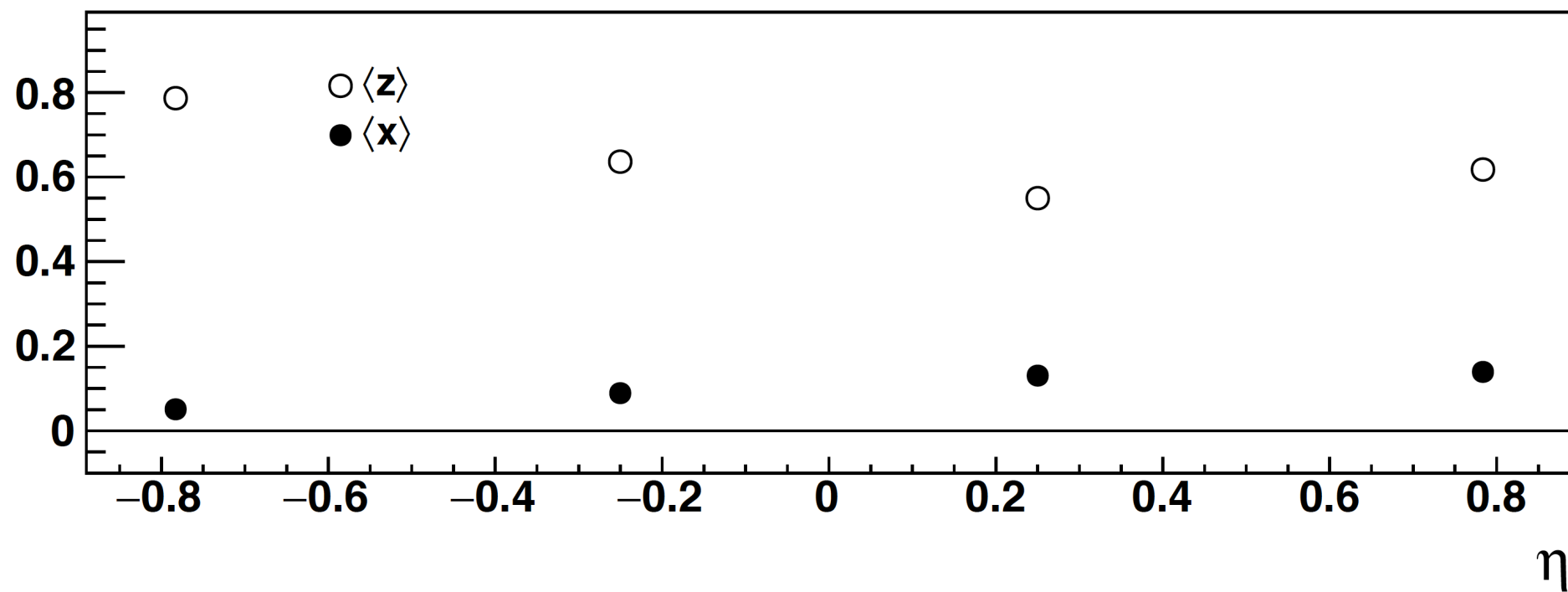
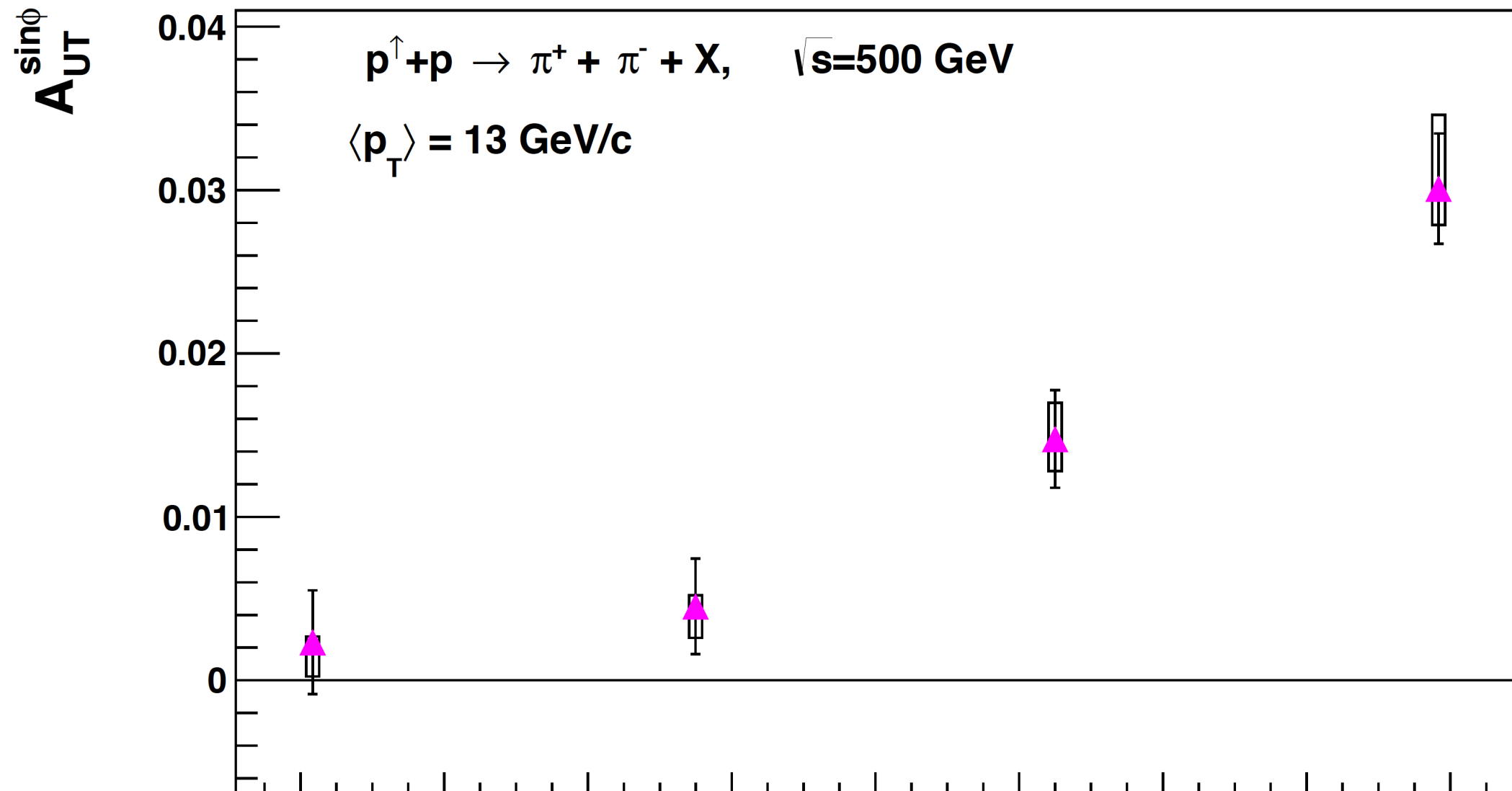
hadd the output from (2) into one file

Run asymmetryVsPt.C, asymmetryVsMinv.C, and asymmetryVsEta.C

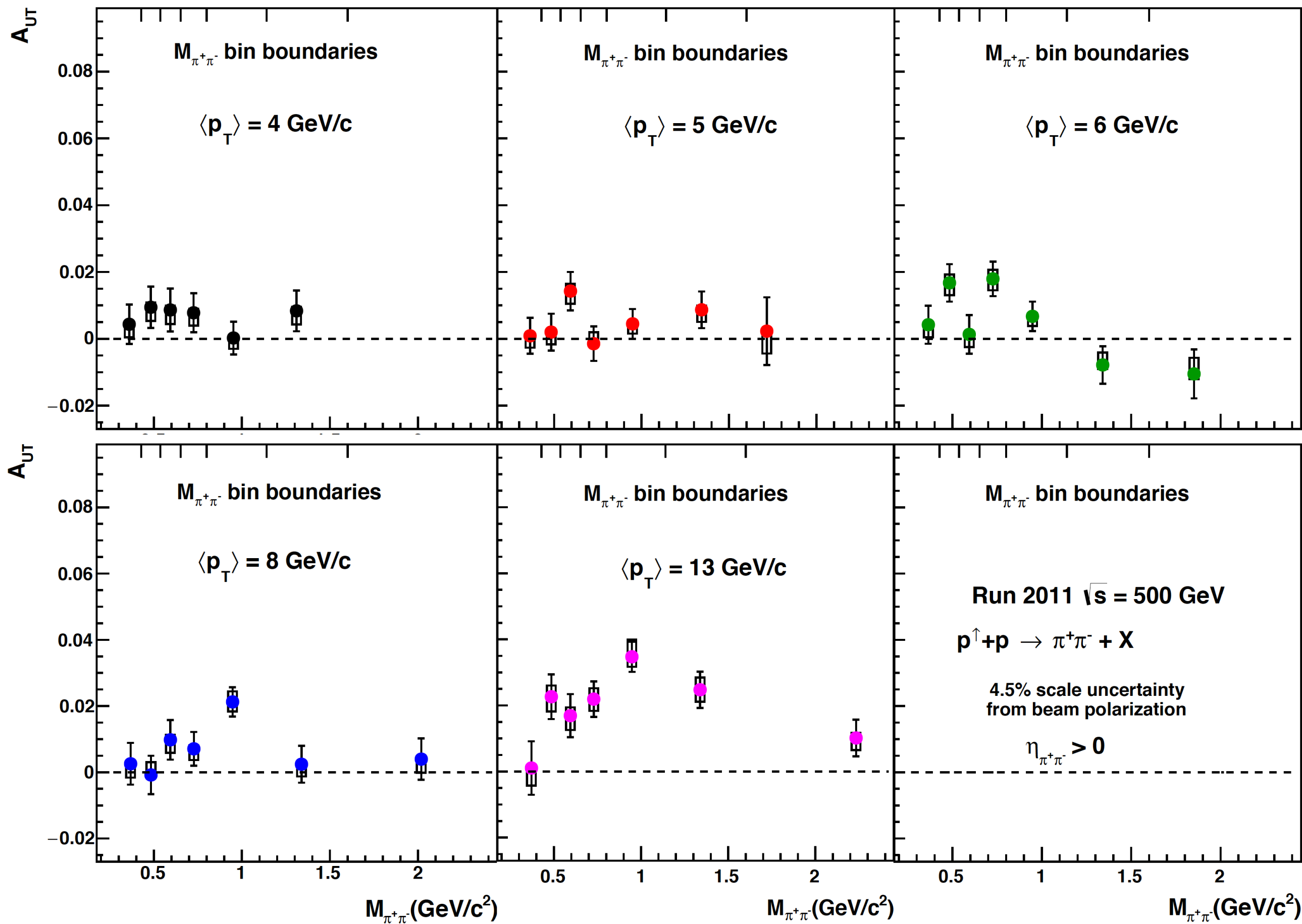
asymmetryVsPt.C



asymmetryVsEta.C (before change to more bins)



asymmetryVsMinv.C



Compare A_UT values with Mike ?

Minv- 0.4 GeV c²

```
double
A_Minv1[7]={0.00435786,0.000896351,0.00421829,0.00256002,0.0049604,-0.0119694,0.0173302};
double
deltaA_Minv1[7]={0.00587468,0.00537147,0.00569225,0.00629149,0.0117752,0.0135604,0.0196297};
double
A_Minv1[7]={0.00174359,0.00502735,0.00276788,0.00637099,-0.00988074,-0.0054324,0.00953528};
double
deltaA_Minv1[7]={0.00583773,0.00538282,0.00568504,0.00627691,0.0117722,0.0135553,0.019696};
```

Minv- 0.5 GeV c²

```
double A_Minv2[7]={0.00944759,0.00200957,0.0167572,-0.000809086,0.0263978,0.0217662,0.0161907};
double
deltaA_Minv2[7]={0.00617608,0.00550295,0.0056211,0.00581565,0.0102188,0.0111775,0.015017};
double
A_Minv2[7]={-0.00823642,-0.000448275,0.00556533,-0.00159942,0.00373199,0.0087099,0.00291255};
double
deltaA_Minv2[7]={0.00620024,0.0055128,0.00558342,0.00581348,0.0101696,0.0110199,0.0150548};
```

Next ?

- Go through roughly all the codes , Macros ?
 - **iff2011.cc , Iff2011.h**
 - **run1pp500.C, submitScript.C**
- ?