


19.6 GeV beam-pipe event analysis

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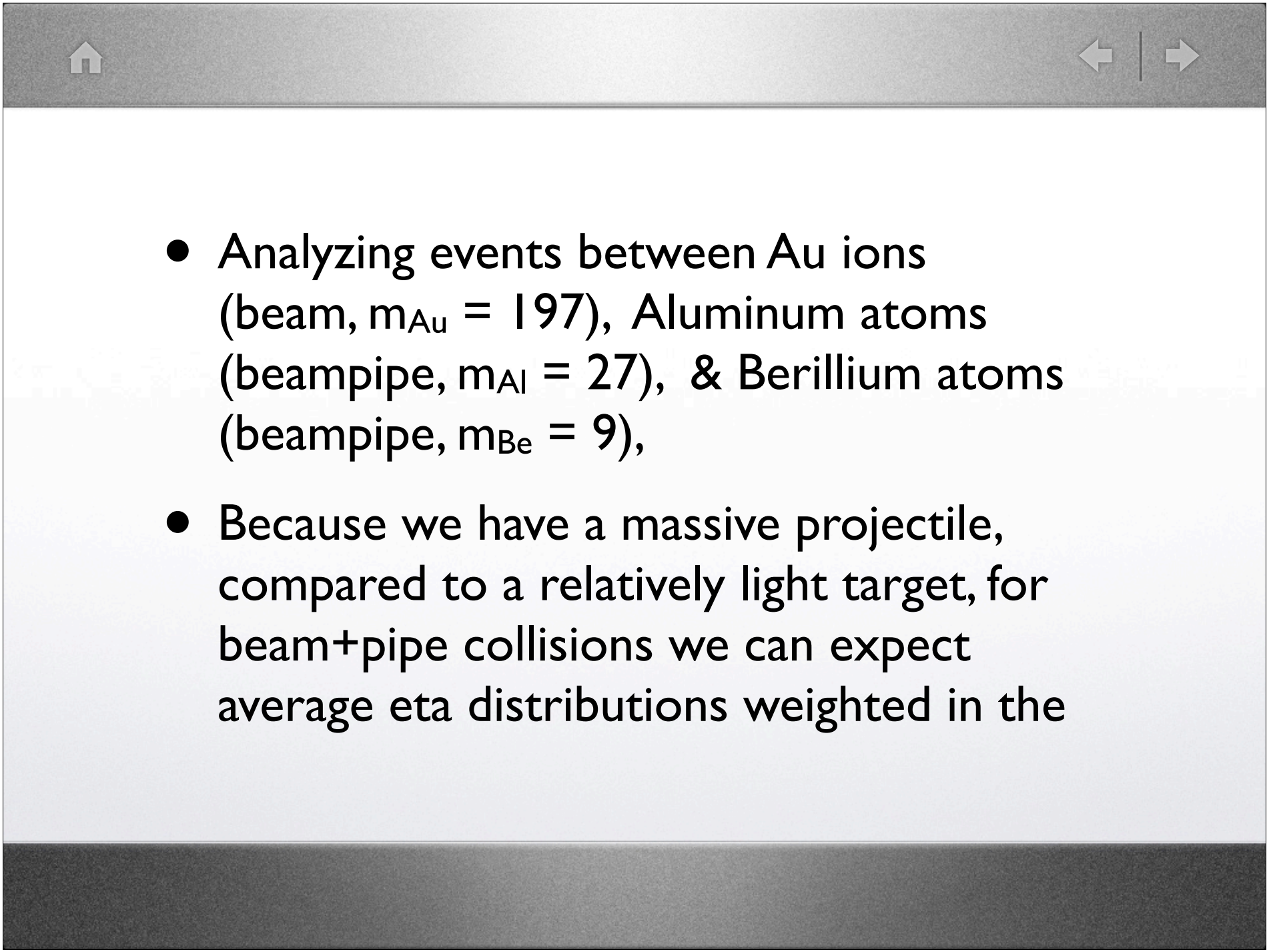
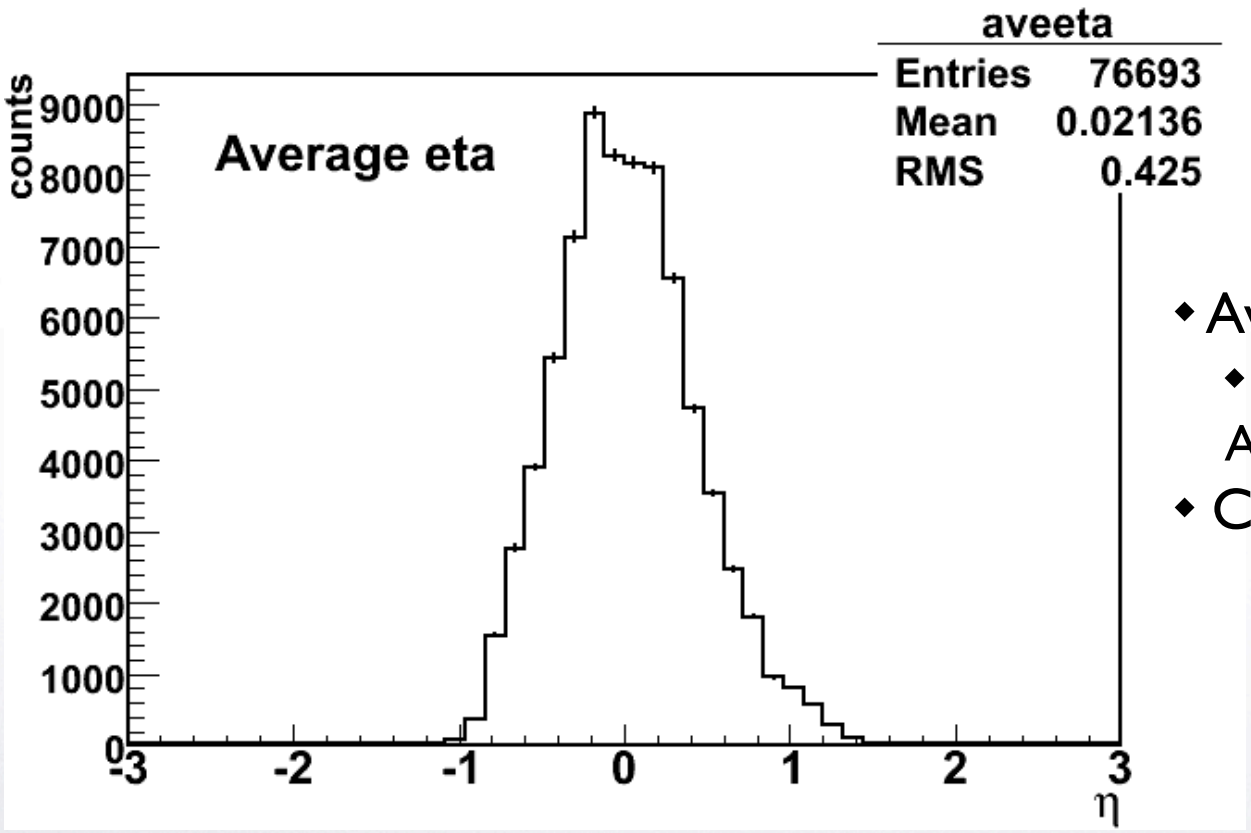
vital stats

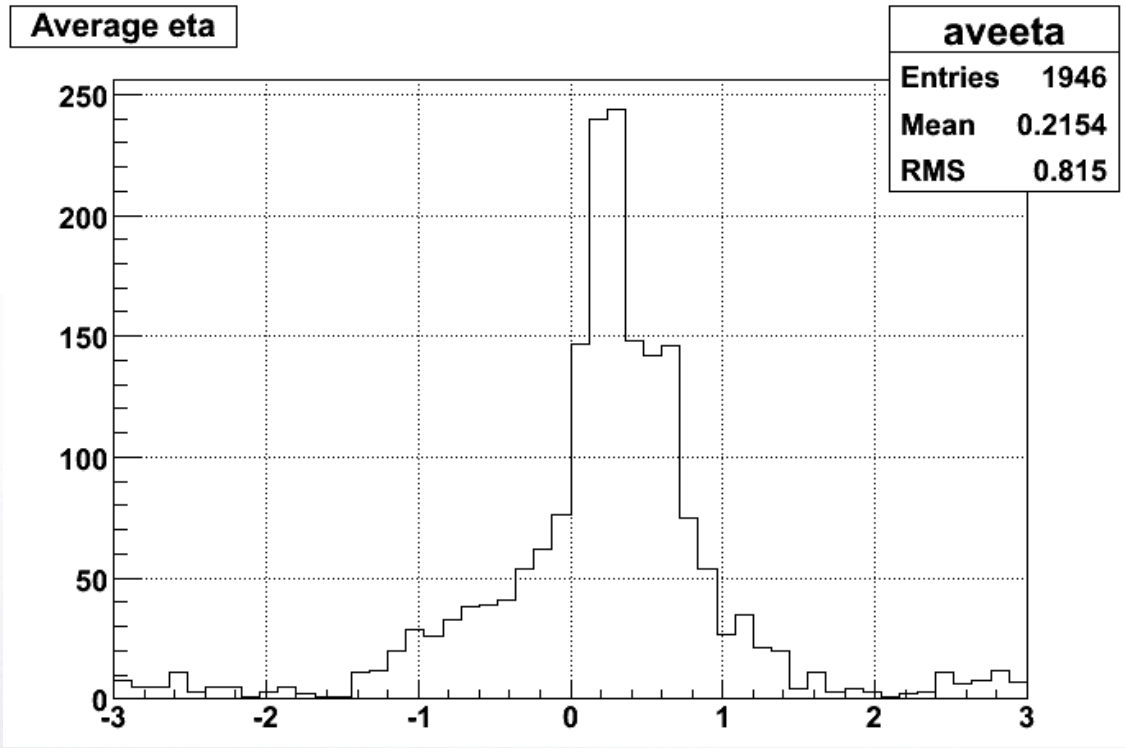
- The 19.6 GeV data set was taken on the final day of year-two heavy-ion running (25-Nov-01 to 26-Nov-01).
- The detector was run at HALF FIELD.
- 12 data runs were recorded (2329088,...91-94,...100-101,2330002-2330005)
- "Minimum bias" trigger:
  - ZDC coincidence & CTB > 15
  - or -
  - No ZDC & CTB > 600
- With no event selection cuts, we have 175466 events
- Selecting on collisions with vertices within 30 cm the center of the detector reduces this to 42412
- Total number of good top 10% centrality events is 5106



- Analyzing events between Au ions (beam, $m_{Au} = 197$), Aluminum atoms (beampipe, $m_{Al} = 27$), & Berillium atoms (beampipe, $m_{Be} = 9$),
- Because we have a massive projectile, compared to a relatively light target, for beam+pipe collisions we can expect average eta distributions weighted in the

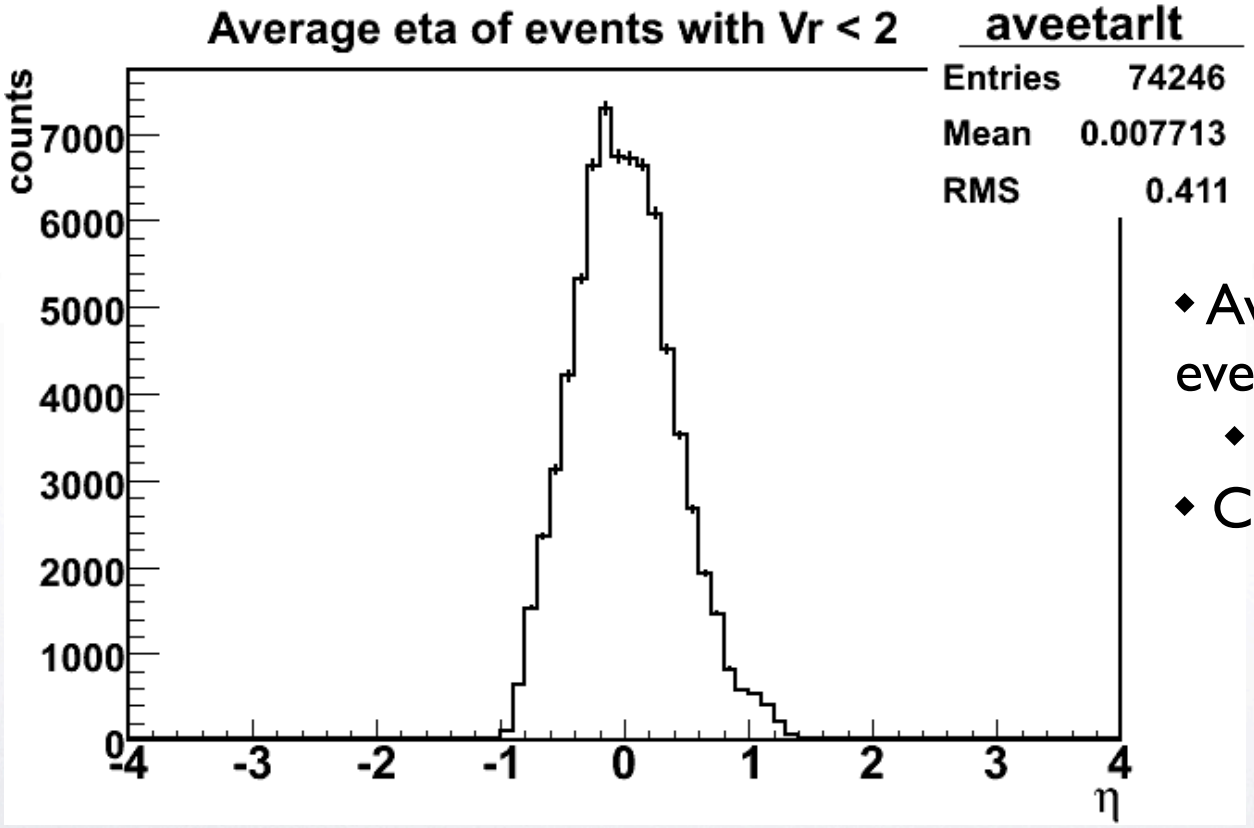


- Average eta of all events:
  - Au + Au, Au + Al, & Au + Be
- Centered around $\eta = 0$

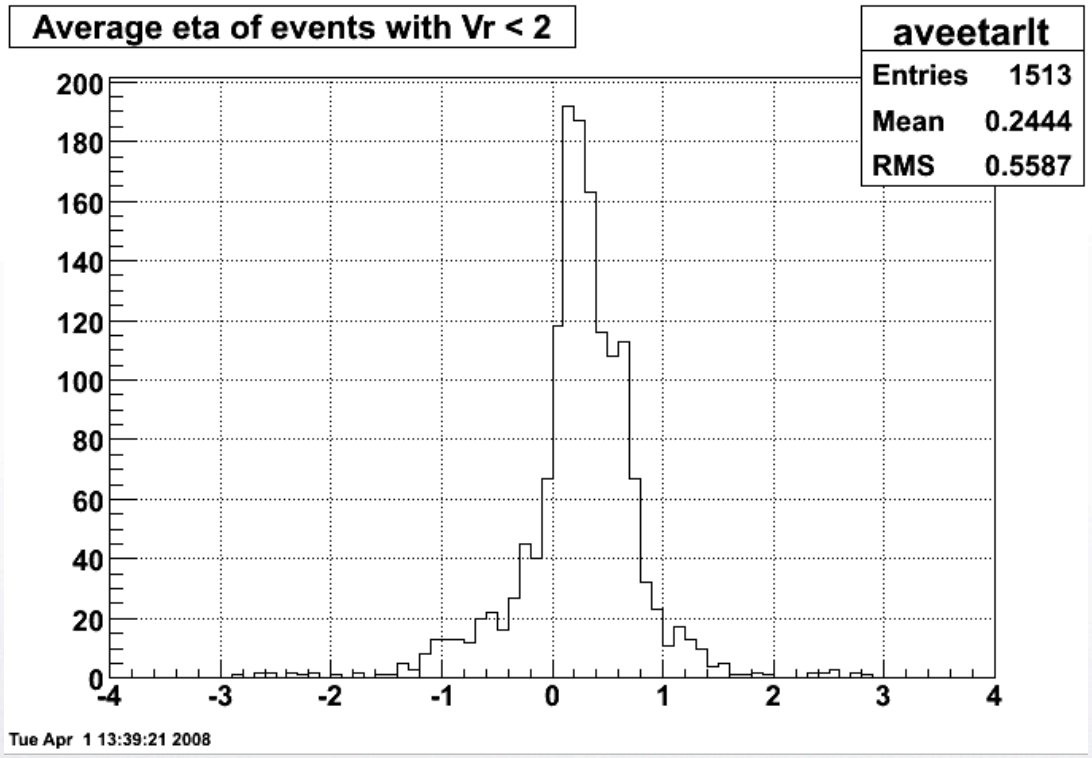


Average eta Run 72 - all events with a primary vertex

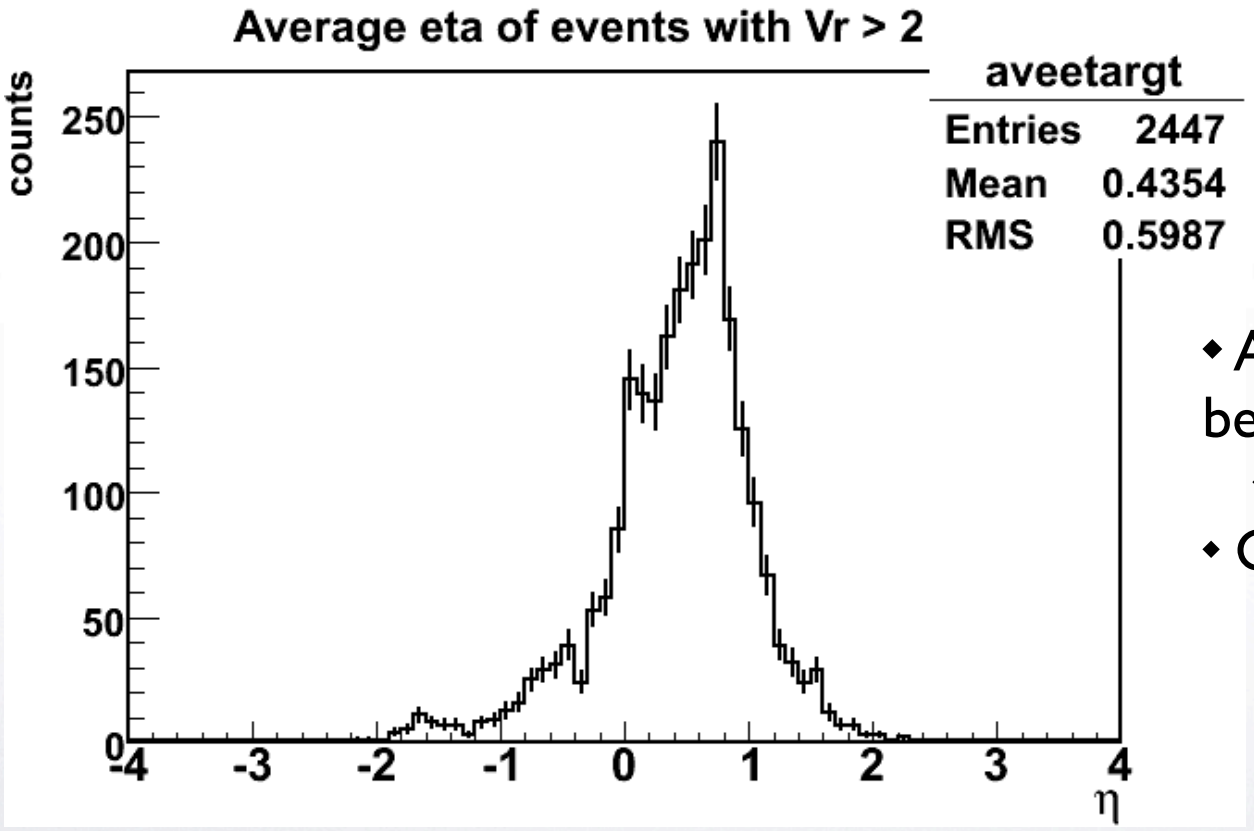
- Average eta from 9 GeV



- Average eta of all HI events:
  - Au + Au only
- Centered around $\eta = 0$

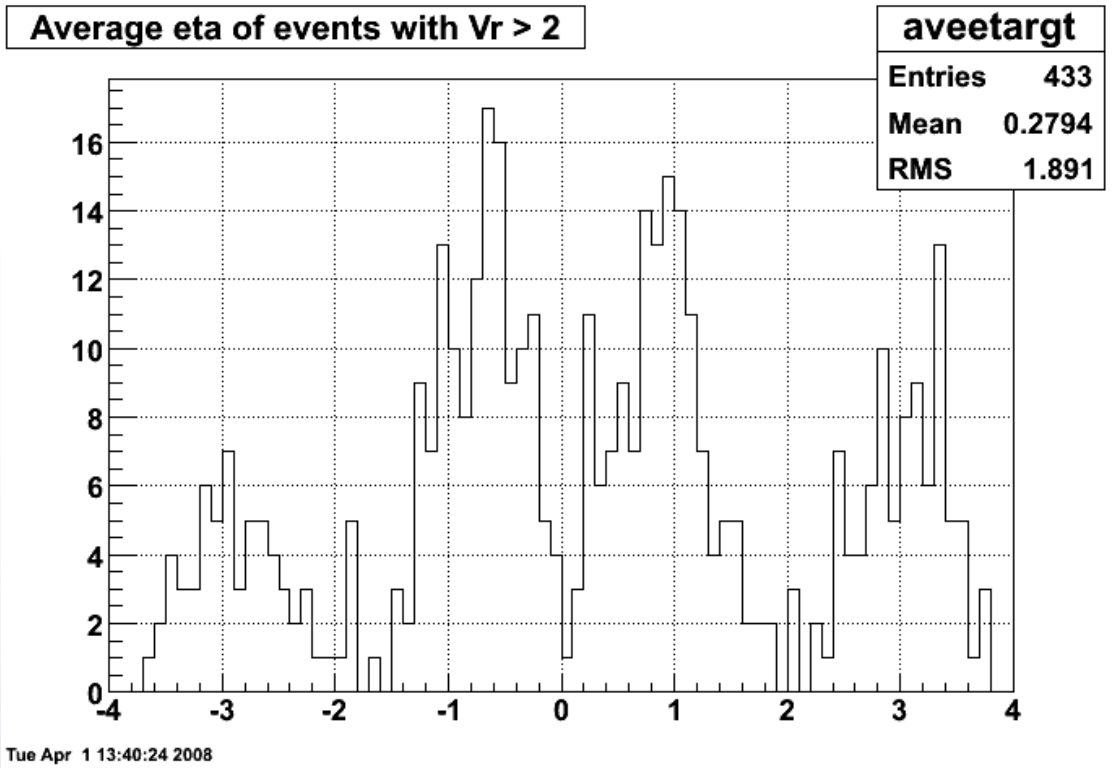


- Average eta of all HI events from 9 GeV analysis:
  - Au + Au only

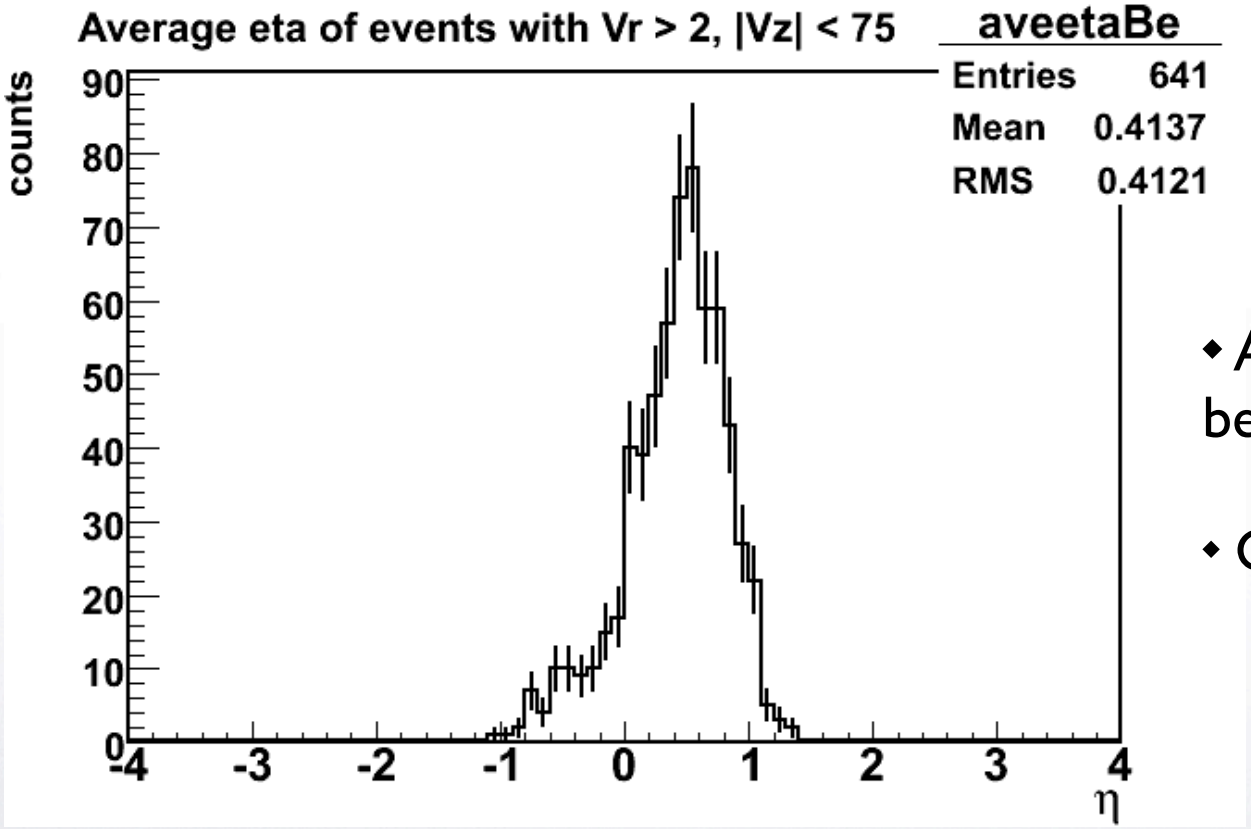


- Average eta of all beam+pipe events
  - Au + Al & Au + Be only
- Centered between

  $1 > \eta > 0$

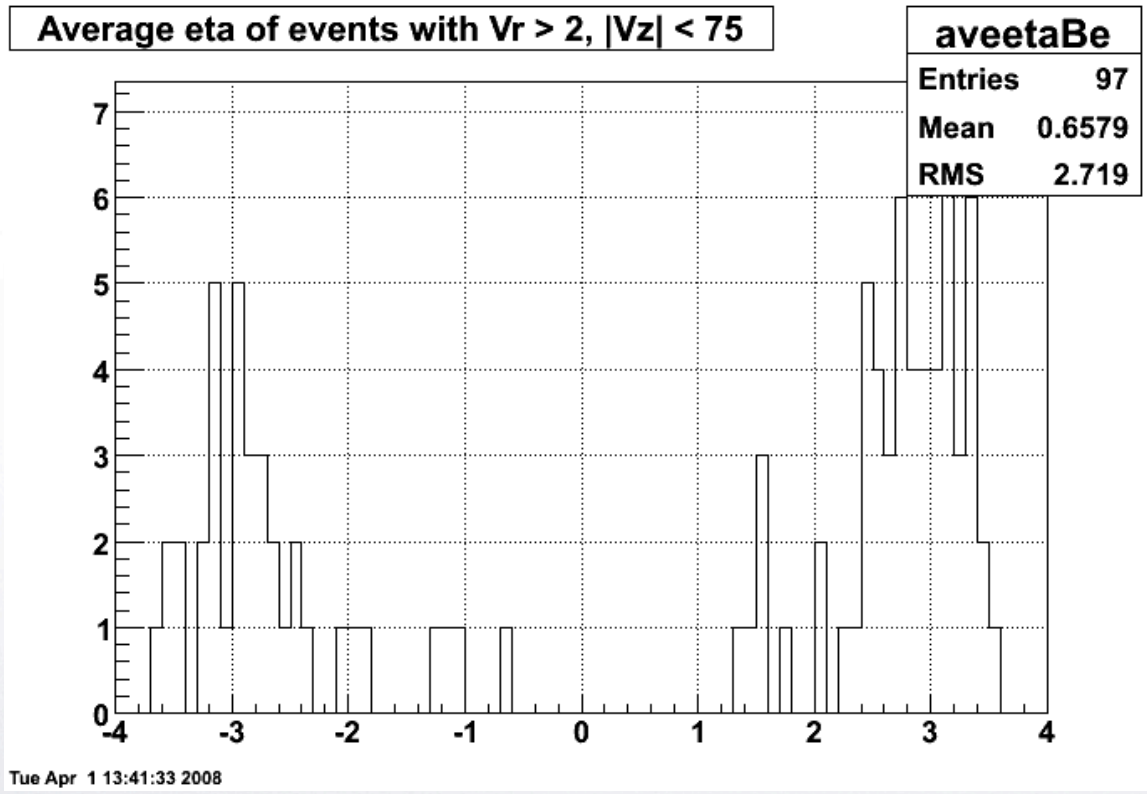


- Average eta of all beam+pipe events for the 9 GeV analysis
  - Au + Al & Au + Be only

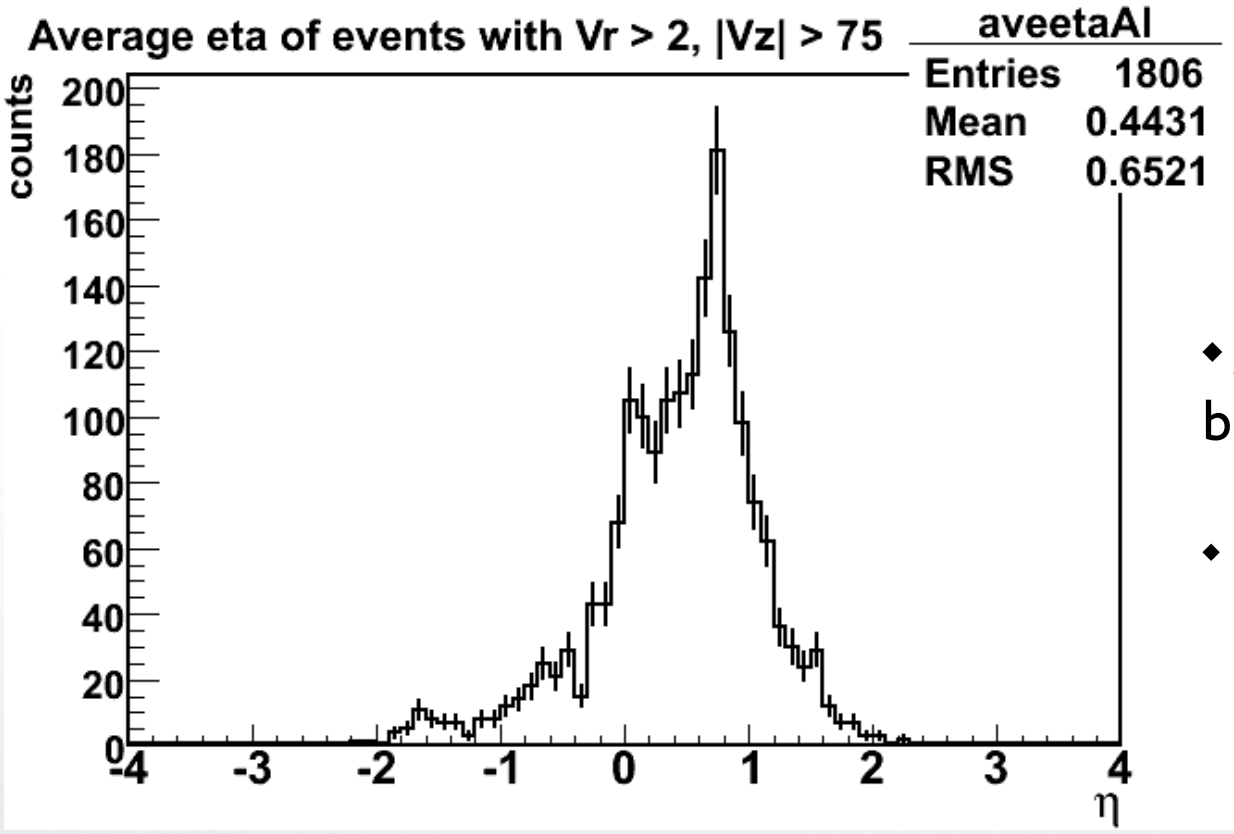


- Average eta of Berillium beam+pipe events
  - Au + Be only
- Centered between

  $1 > \eta > 0$

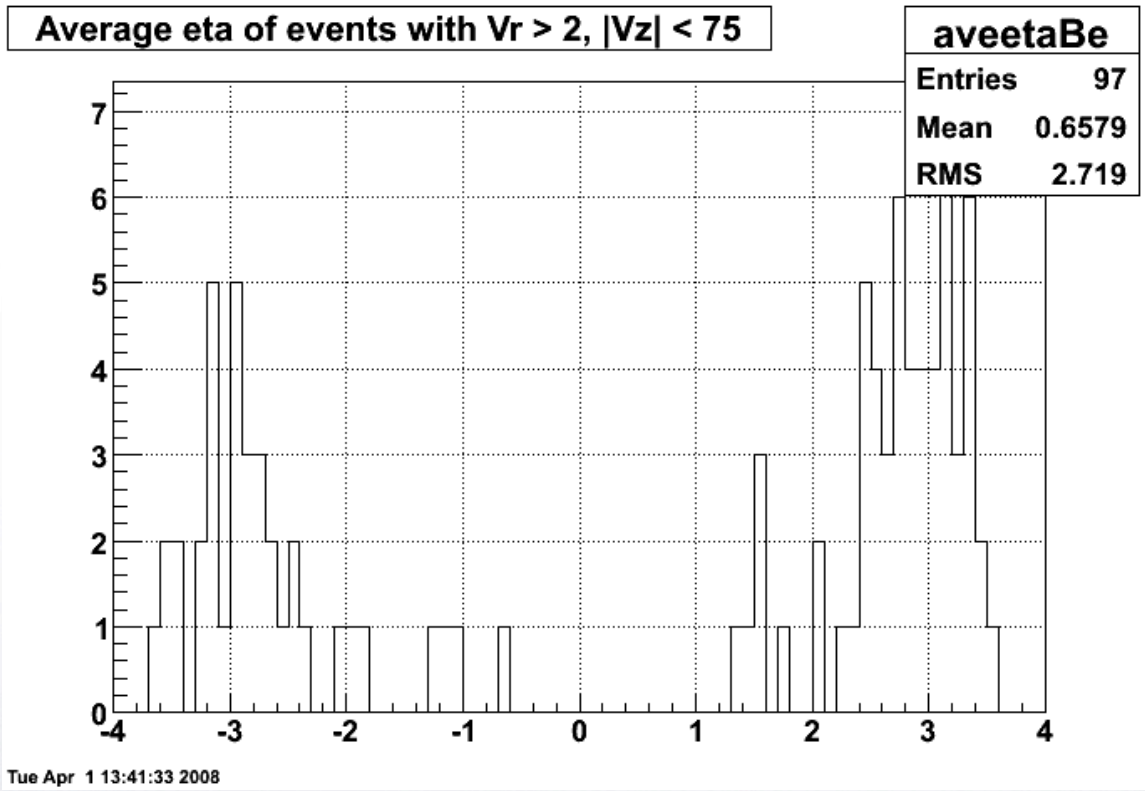


- Average eta of Berillium beam+pipe events for the 9.8 GeV analysis
  - Au + Be only

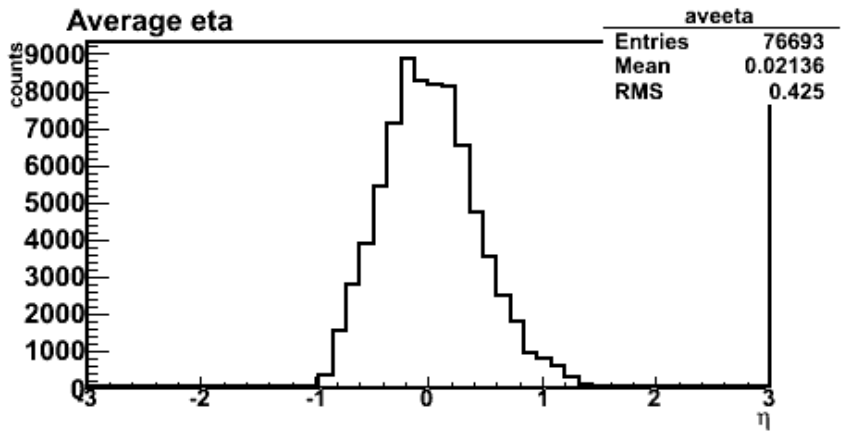


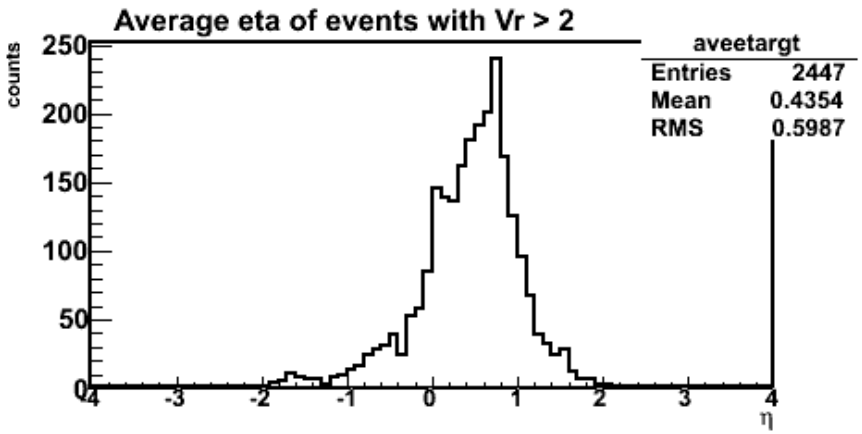
- Average eta of Aluminum beam+pipe events
  - Au + Al only
- Centered between

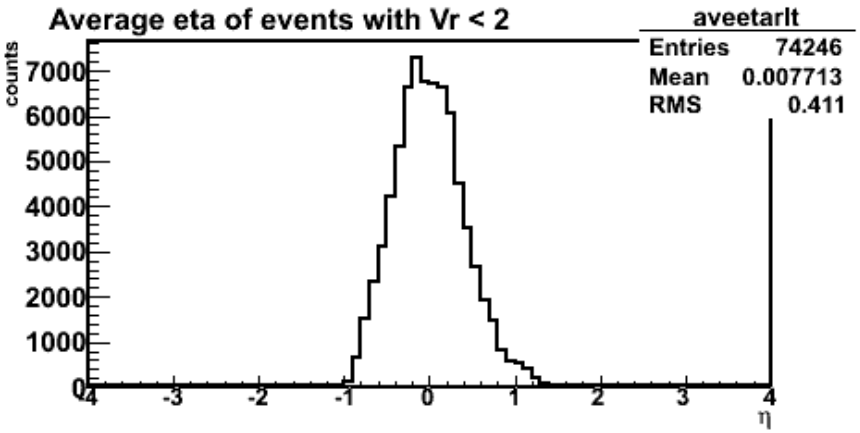
  $1 > \eta > 0$

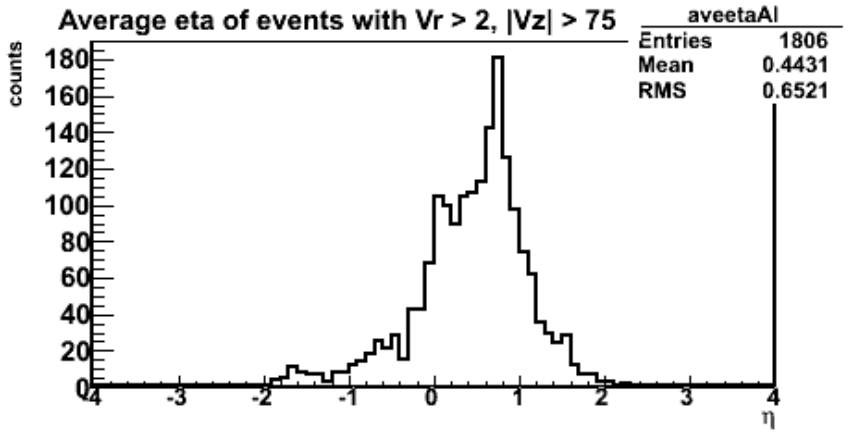


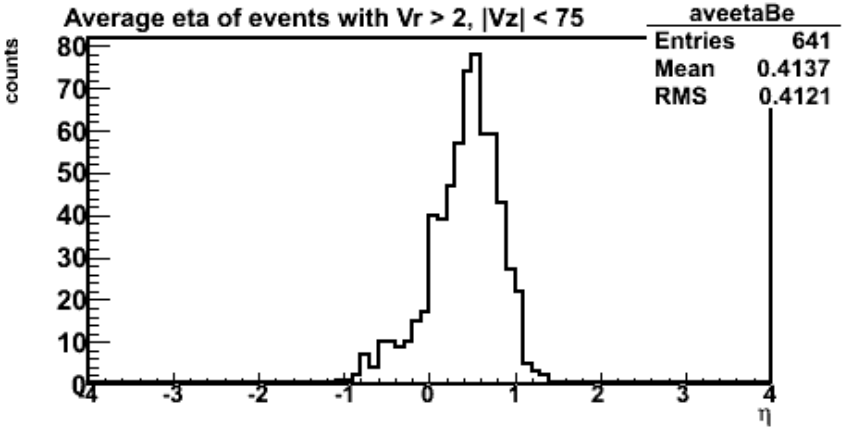
- Average eta of Aluminum beam+pipe events for the 9.8 GeV data
  - Au + Al only


Average eta
aveeta
Entries 76693
Mean 0.02136
RMS 0.425
counts
η


Average eta of events with Vr > 2
aveetargt
Entries 2447
Mean 0.4354
RMS 0.5987
counts
η


Average eta of events with Vr < 2
aveetarlt
Entries 74246
Mean 0.007713
RMS 0.411
counts
η


Average eta of events with Vr > 2, |Vz| > 75
aveetaAl
Entries 1806
Mean 0.4431
RMS 0.6521
counts
η


Average eta of events with Vr > 2, |Vz| < 75
aveetaBe
Entries 641
Mean 0.4137
RMS 0.4121
counts
η


Backup