

**Angular Dispersion with BT  
Gamma data  
v1r030604p6 Vs. v1r030603p9 BTR**

Nicola Mazziotta

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mazziotta@ba.infn.it

# v1r030604p6 release

- Problem reading the Merit root files
  - The branch “McSourceName” needs to be disabled

# Photon Event classification

Score



- **Class A: events with 1 vertex**
  - **Class A.1: events with 2 tracks:**
    - $\text{Tkr1LastLayer} == 0 \ \&\& \ \text{Tkr2LastLayer} == 0 \ \&\& \ \text{Tkr1FirstLayer} > 1 \ \&\& \ \text{Tkr2FirstLayer} > 1$ 
      - **Class A.1.1:  $\text{CalCsIRLn} > 6$** 
        - » Class A.1.1.1: First two top TKR plane as Veto
  - **Class A.2: events with 1 track:**
    - $\text{Tkr1LastLayer} == 0 \ \&\& \ \text{Tkr1FirstLayer} > 1$ 
      - **Class A.2.1:  $\text{CalCsIRLn} > 6$** 
        - » Class A.2.1.1: First two top TKR plane as Veto
- **Class B: events with 2 Vertices**
  - **Class B.1.1: Number of tracks associated with the first vertex  $(\text{Vtx1NumTkrs}) == 2 \ \&\& \ \text{Tkr1LastLayer} == 0 \ \&\& \ \text{Tkr2LastLayer} == 0 \ \&\& \ \text{Tkr1FirstLayer} > 1 \ \&\& \ \text{Tkr2FirstLayer} > 1 \ \&\& \ \text{CalCsIRLn} > 6$**
- **Class C: events with 3 or more Vertices**
  - **Class C.1.1: Number of tracks associated with the first vertex  $(\text{Vtx1NumTkrs}) == 2 \ \&\& \ \text{Tkr1LastLayer} == 0 \ \&\& \ \text{Tkr2LastLayer} == 0 \ \&\& \ \text{Tkr1FirstLayer} > 1 \ \&\& \ \text{Tkr2FirstLayer} > 1 \ \&\& \ \text{CalCsIRLn} > 6$**

Score

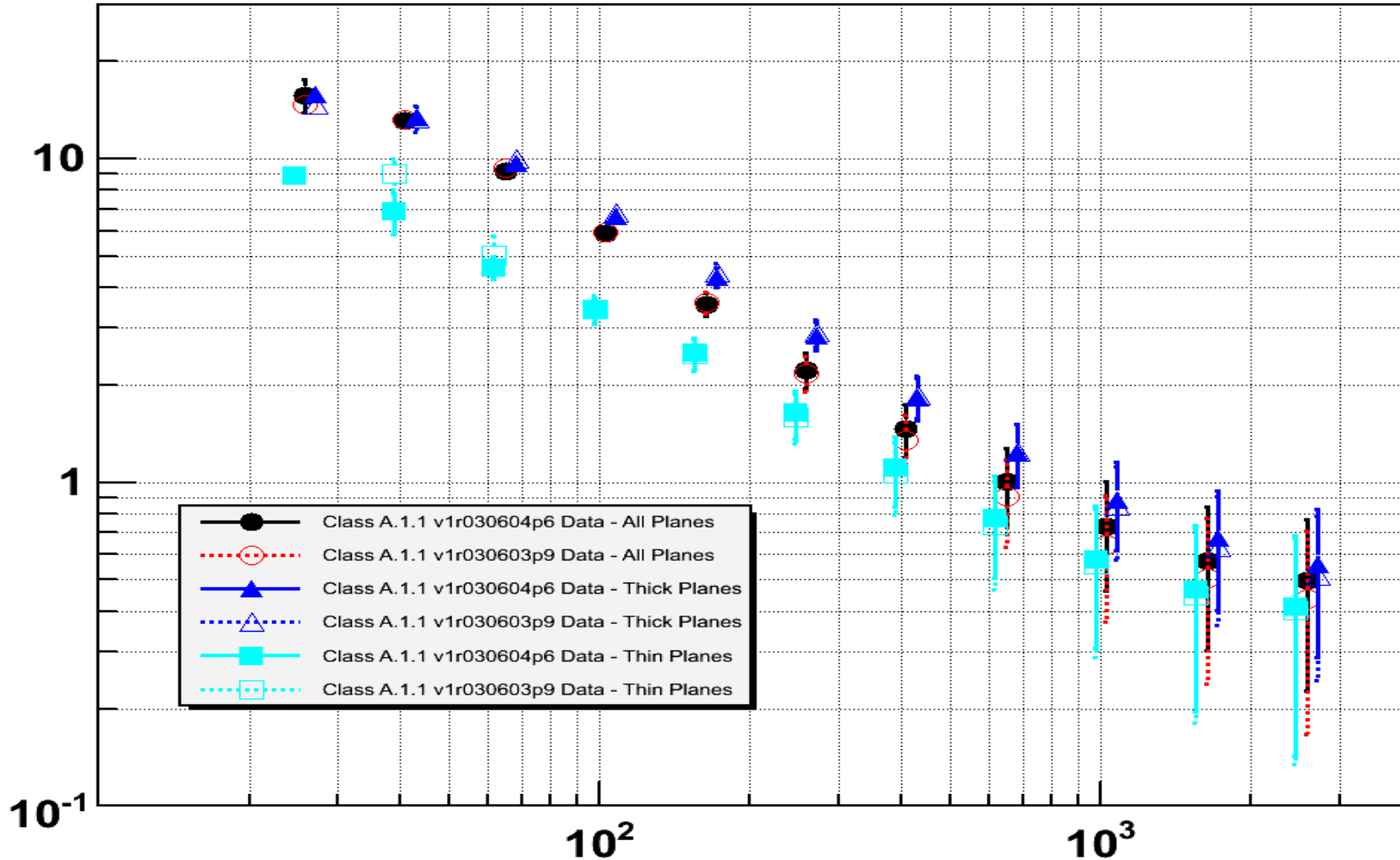


# Summary

- Slides 5-8: Tower 2 FB 0 deg, v1r030604p6 (full symbols) v1r030603p9 (open symbols) comparison
  - The angle dispersion are consistent within the error bars, but
    - the angular resolution for Class A.2.1 in thin planes does not increase with the energy (Slide 6) **News!**
- Slides 9-12: Tower 3 FB 0 deg, v1r030604p6 (full symbols) v1r030603p9 (open symbols) comparison
  - The angle dispersion are consistent within the error bars, but
    - the angular resolution for Class A.2.1 in thin planes does not increase with the energy (Slide 6) **News!**
    - The current angular resolution looks flatter at high energy
- Slides 13-16: Tower 3 FB 0 deg, v1r030604p6 (full symbols) MC Mass simulation (open symbols) comparison
  - The angle dispersion are consistent within the error bars

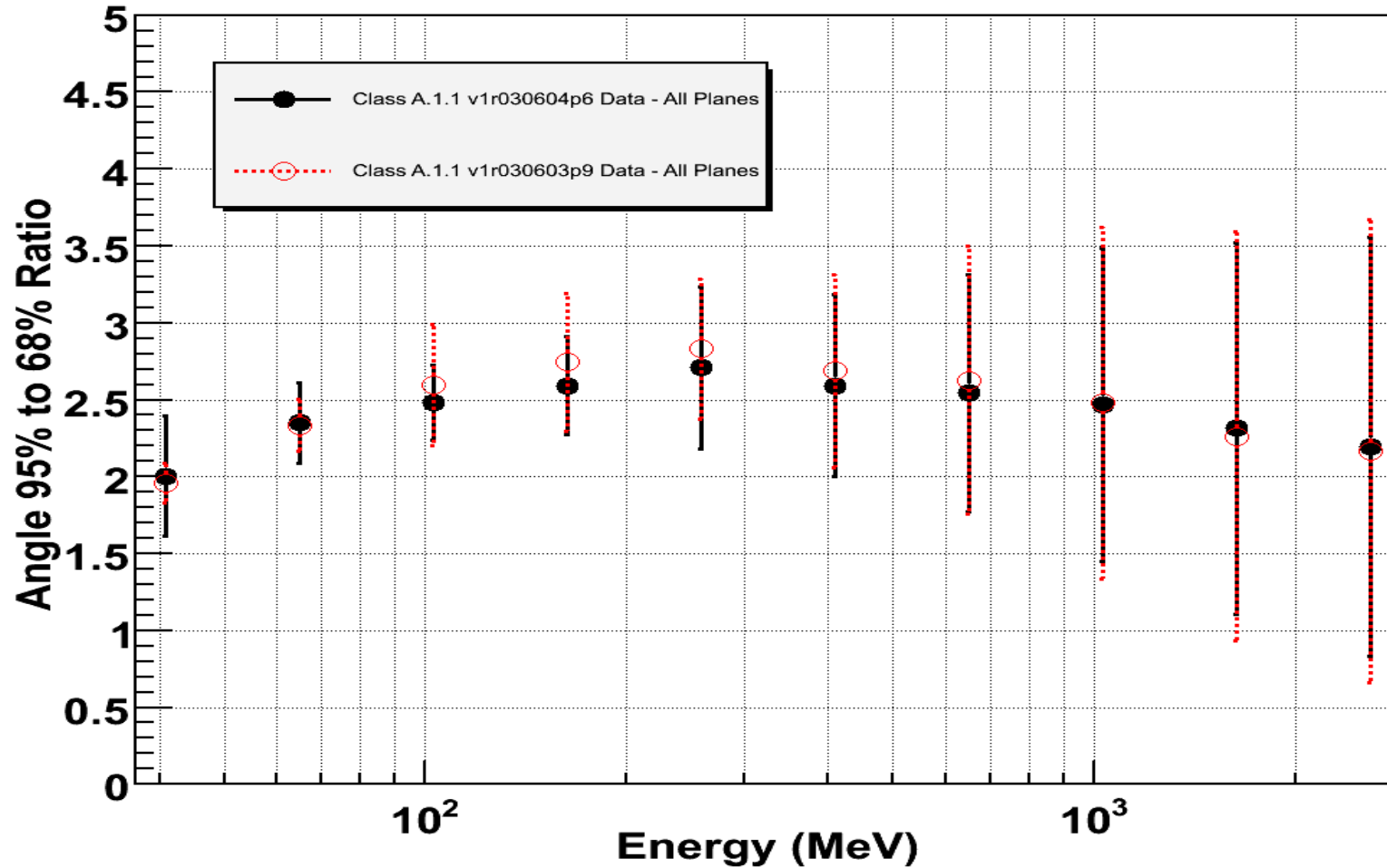
# Angle at 68% - Class A.1.1 - 0 Deg incidence

Tower 2 - Angular Resolution Vs. Reconstructed Energy at Normal Incidence (2.5 GeV Electron beam)



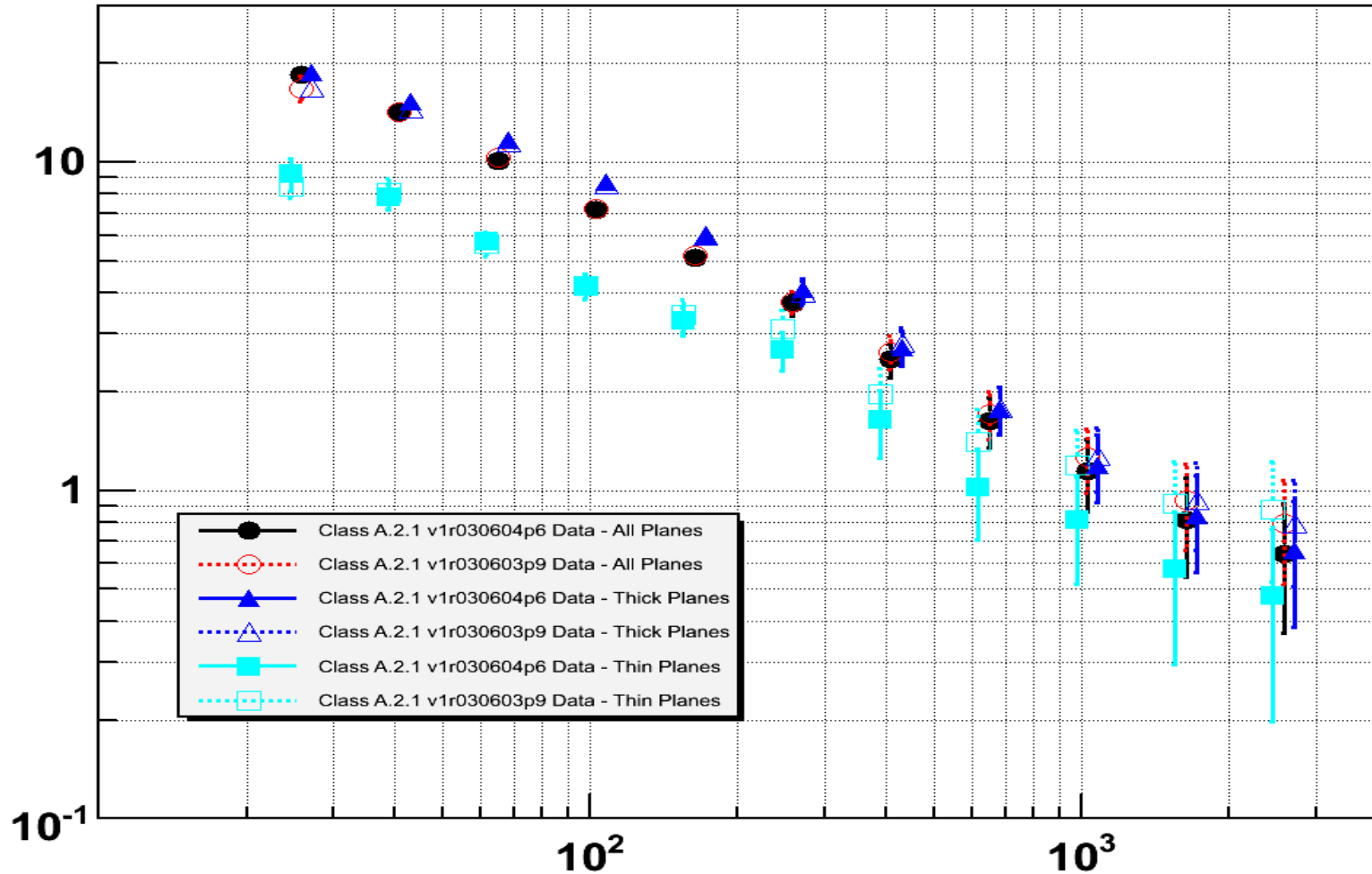
# Angle 95% to 68% ratio – Class A.1.1 at 0 Deg

Tower 2 - Angular Resolution Vs. Reconstructed Energy at Normal Incidence (2.5 GeV Electron beam)



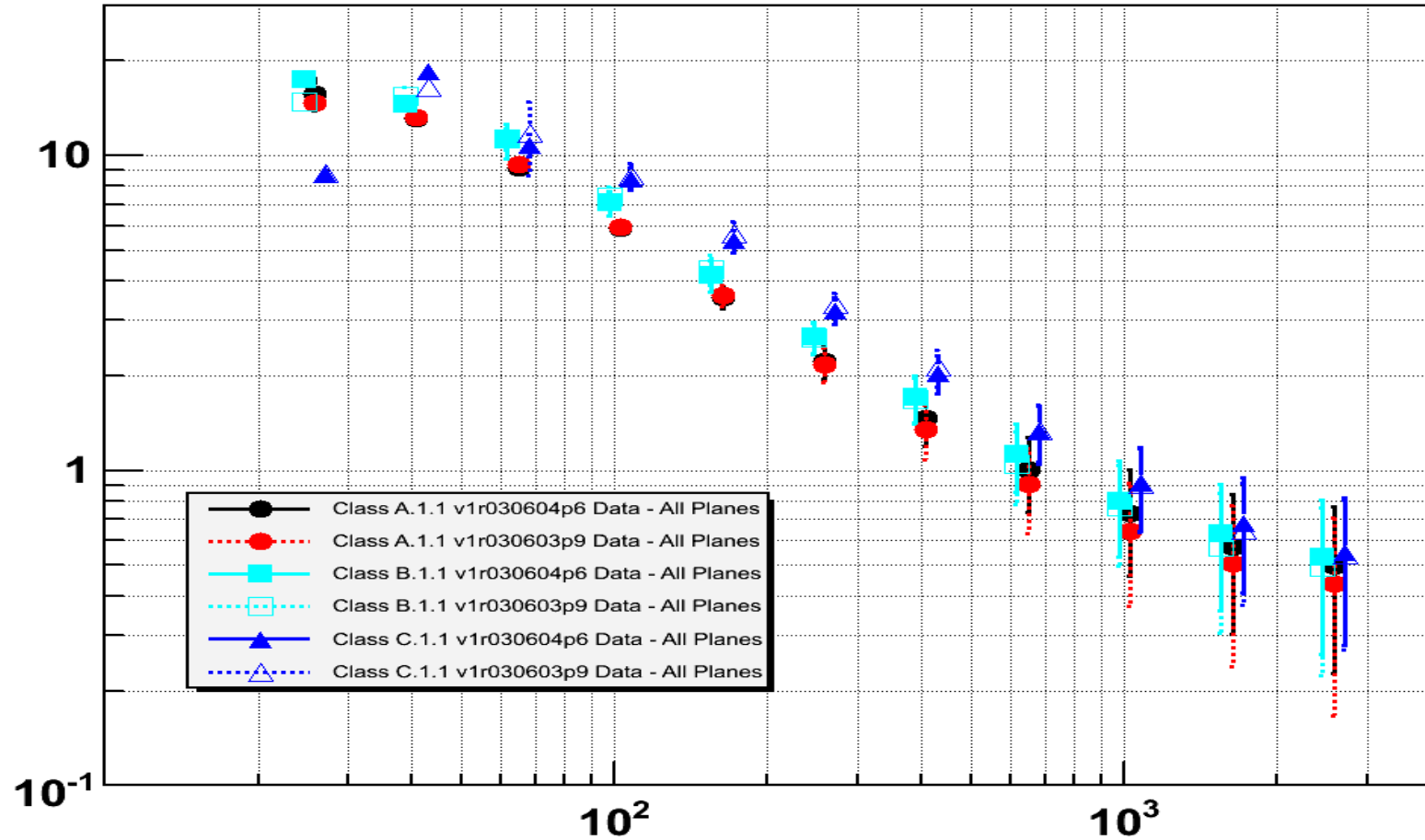
# Angle at 68% - Class A.2.1 - 0 Deg incidence

Tower 2 - Angular Resolution Vs. Reconstructed Energy at Normal Incidence (2.5 GeV Electron beam)



# Angle at 68% - Classes A, B and C - 30 Deg incidence

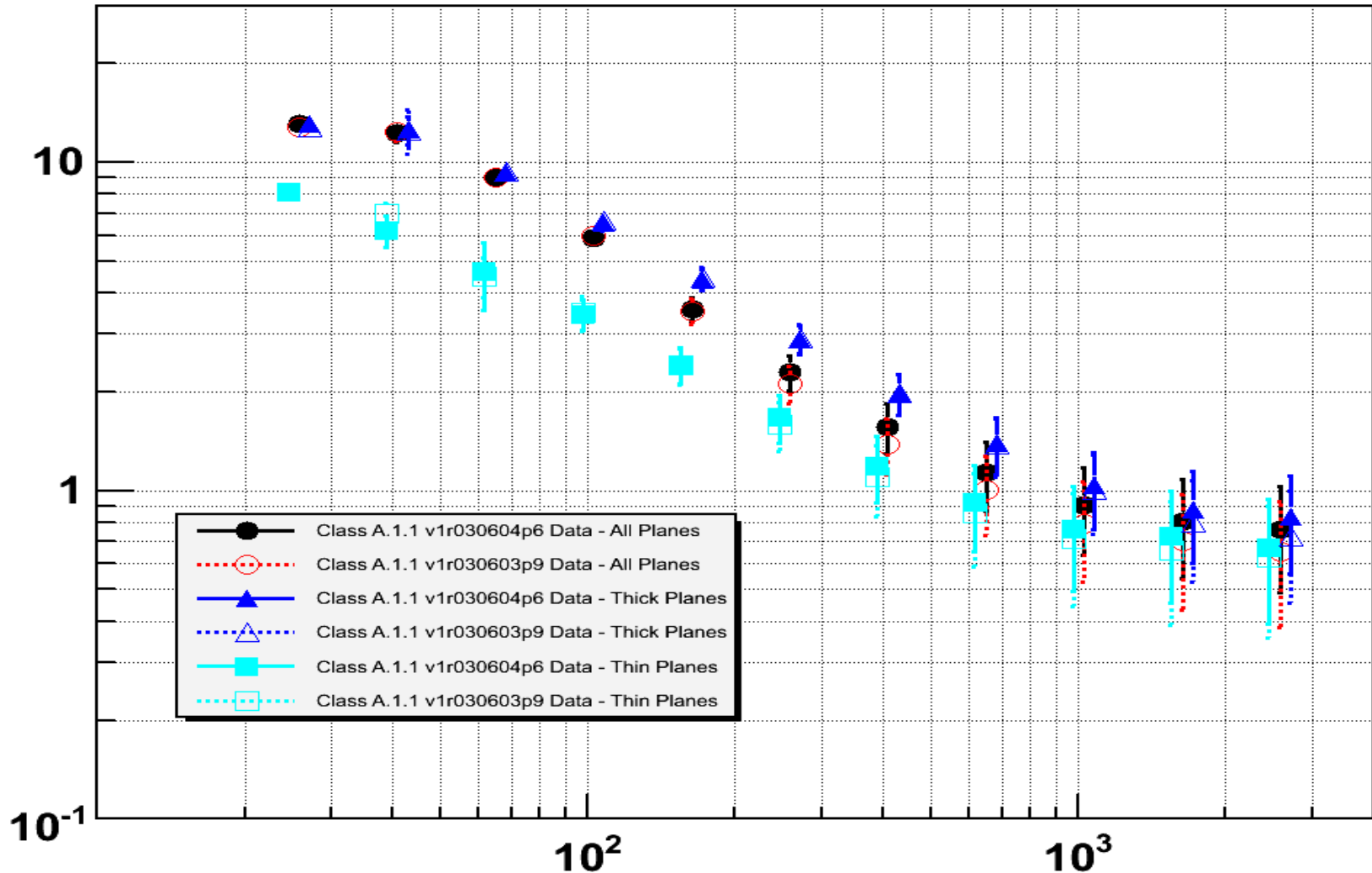
Tower 2 - Angular Resolution Vs. Reconstructed Energy at Normal Incidence (2.5 GeV Electron beam)





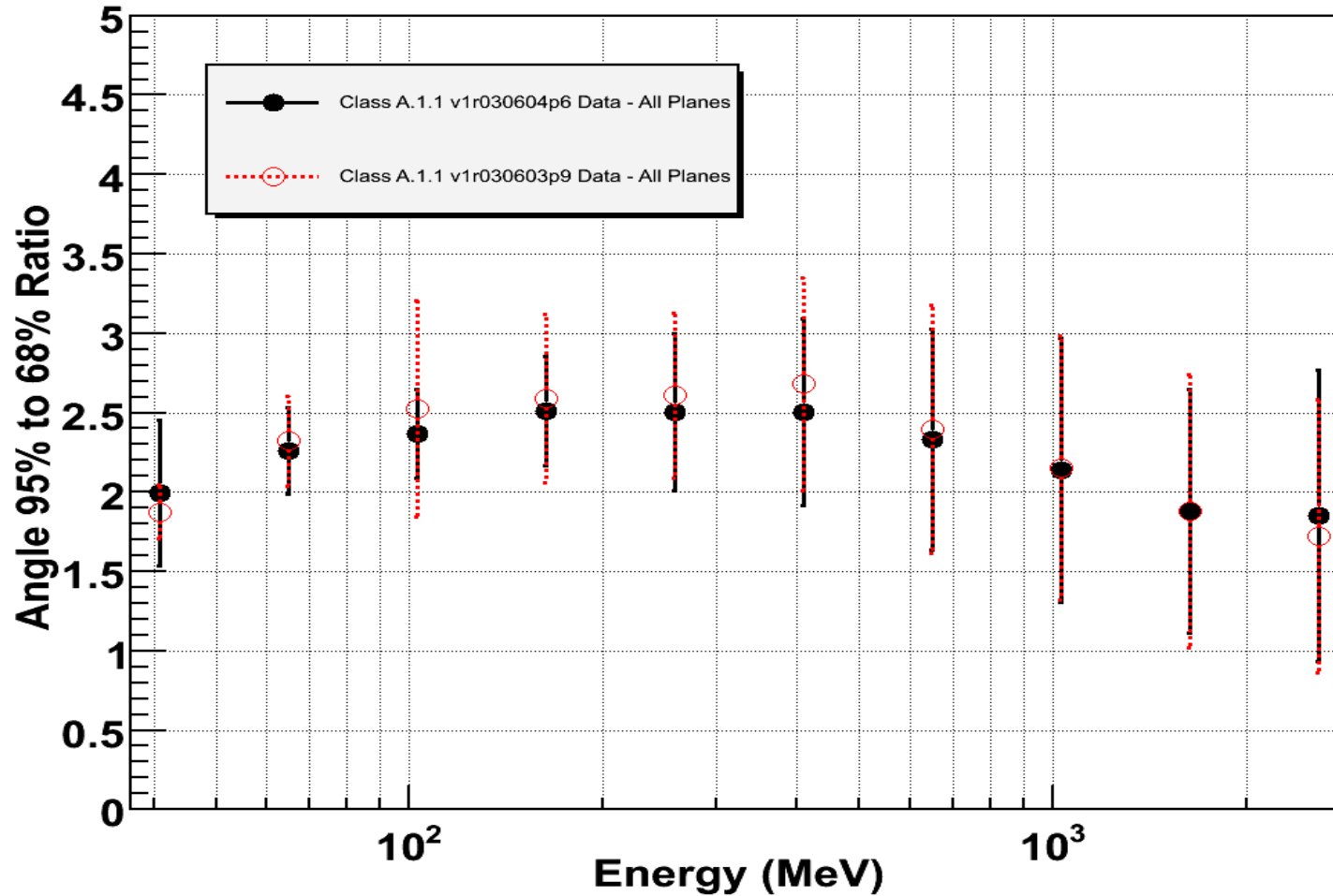
# Angle at 68% - Class A.1.1 - 0 Deg incidence

Tower 3 - Angular Resolution Vs. Reconstructed Energy at Normal Incidence (2.5 GeV Electron beam)



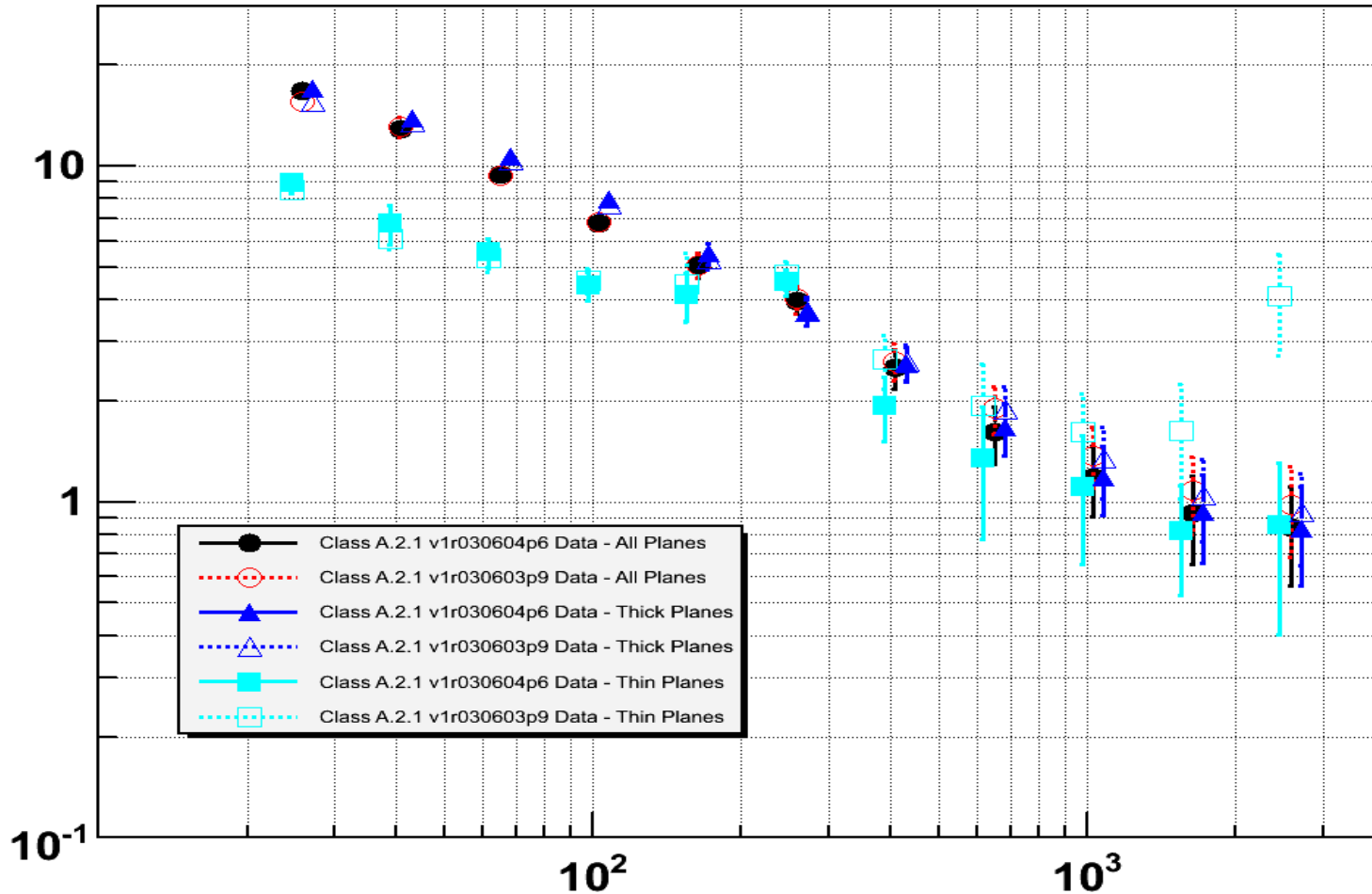
# Angle 95% to 68% ratio – Class A.1.1 at 0 Deg

Tower 3 - Angular Resolution Vs. Reconstructed Energy at Normal Incidence (2.5 GeV Electron beam)



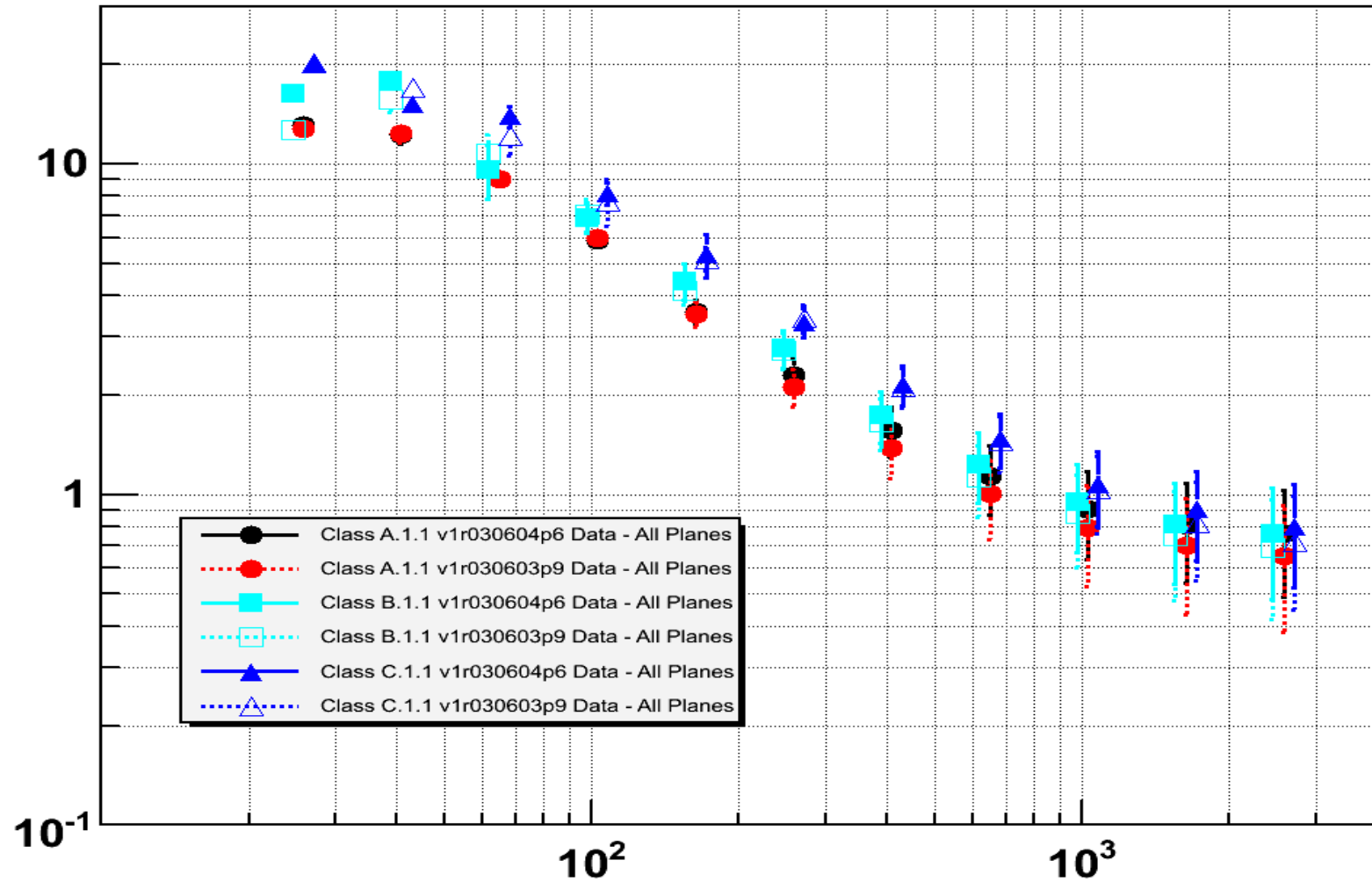
# Angle at 68% - Class A.2.1 - 0 Deg incidence

Tower 3 - Angular Resolution Vs. Reconstructed Energy at Normal Incidence (2.5 GeV Electron beam)



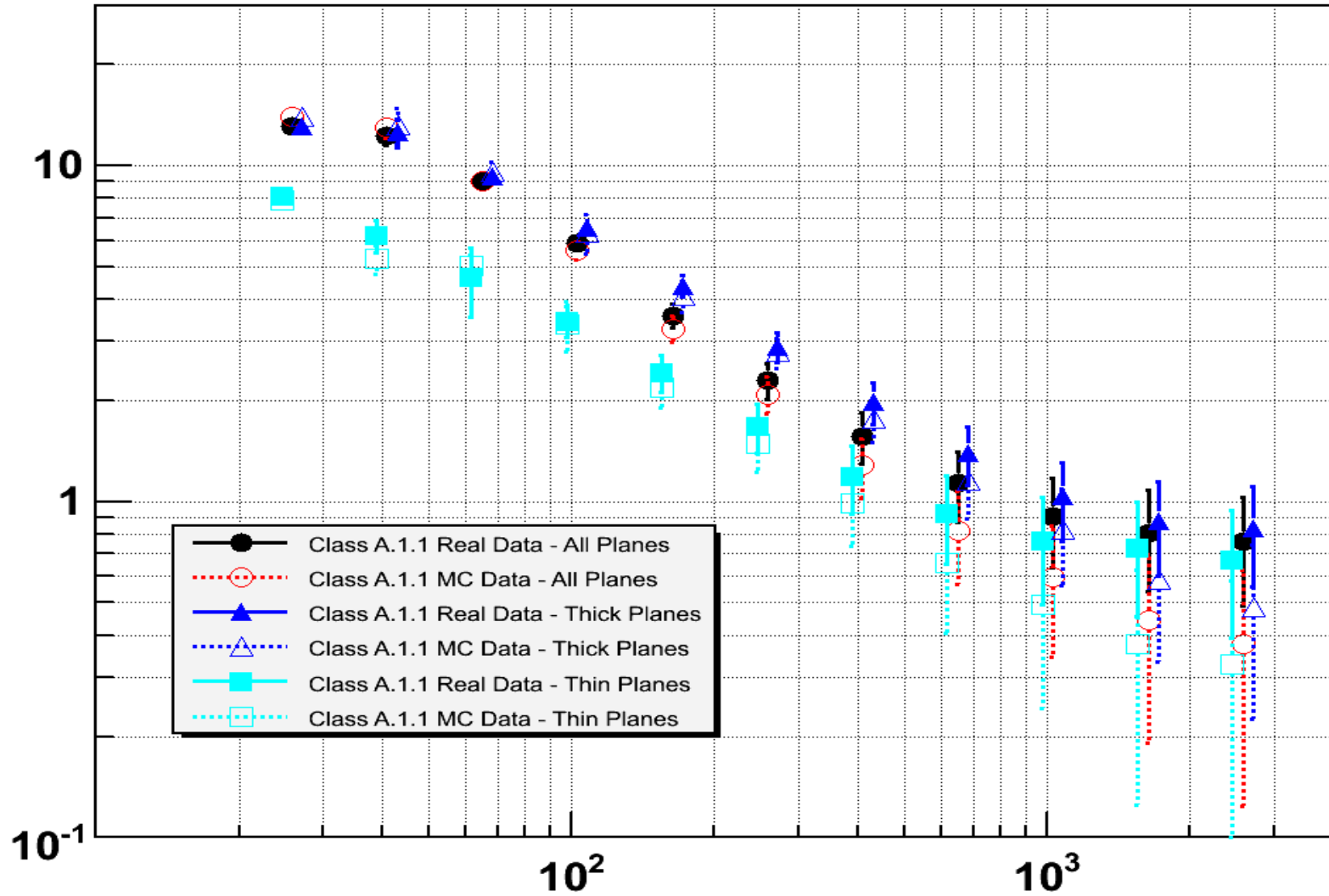
# Angle at 68% - Classes A, B and C - 30 Deg incidence

Tower 3 - Angular Resolution Vs. Reconstructed Energy at Normal Incidence (2.5 GeV Electron beam)

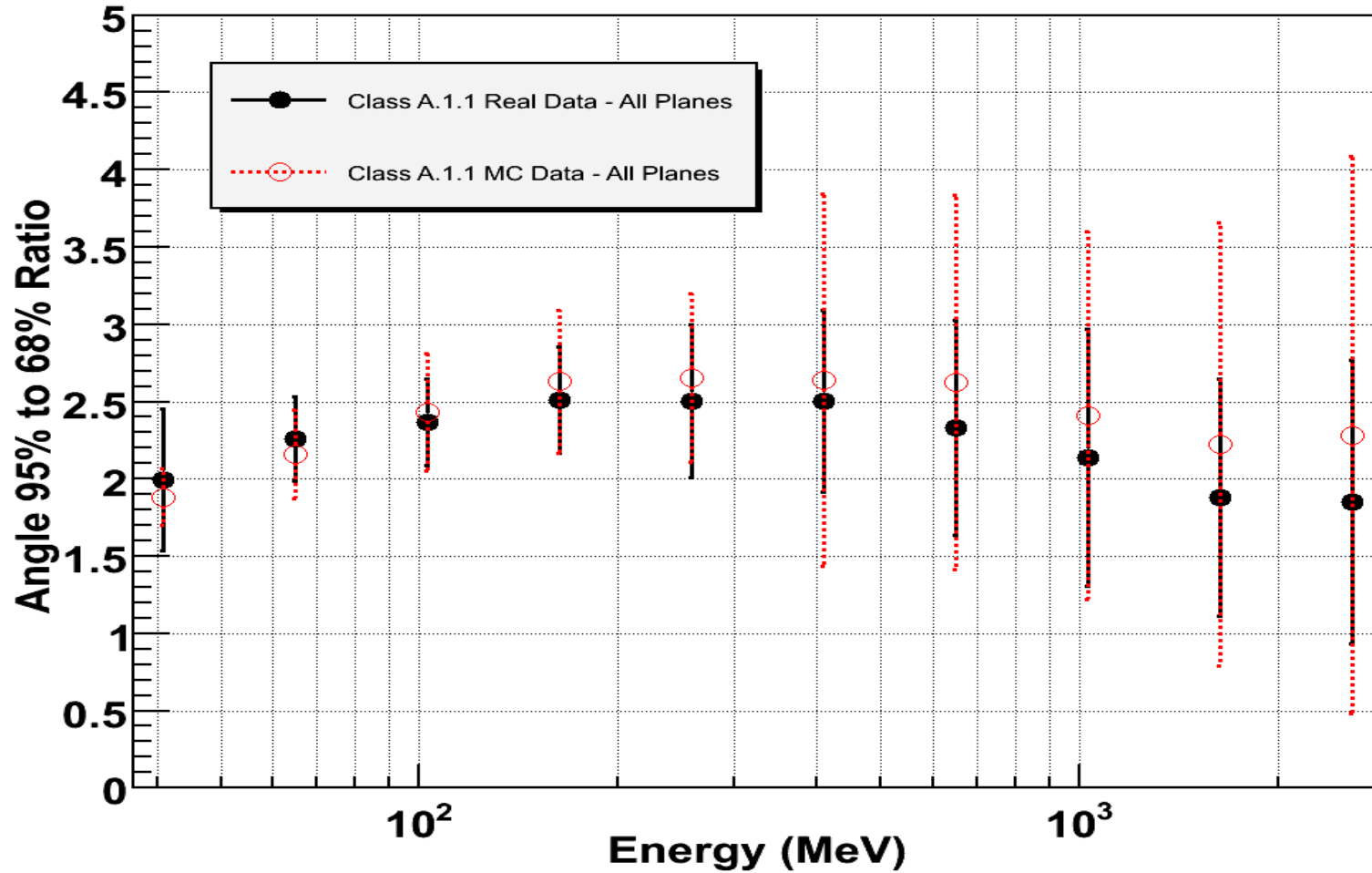


# Angle at 68% - Class A.1.1 - 0 Deg incidence

Tower 3 - Angular Resolution Vs. Reconstructed Energy at Normal Incidence (2.5 GeV Electron beam)

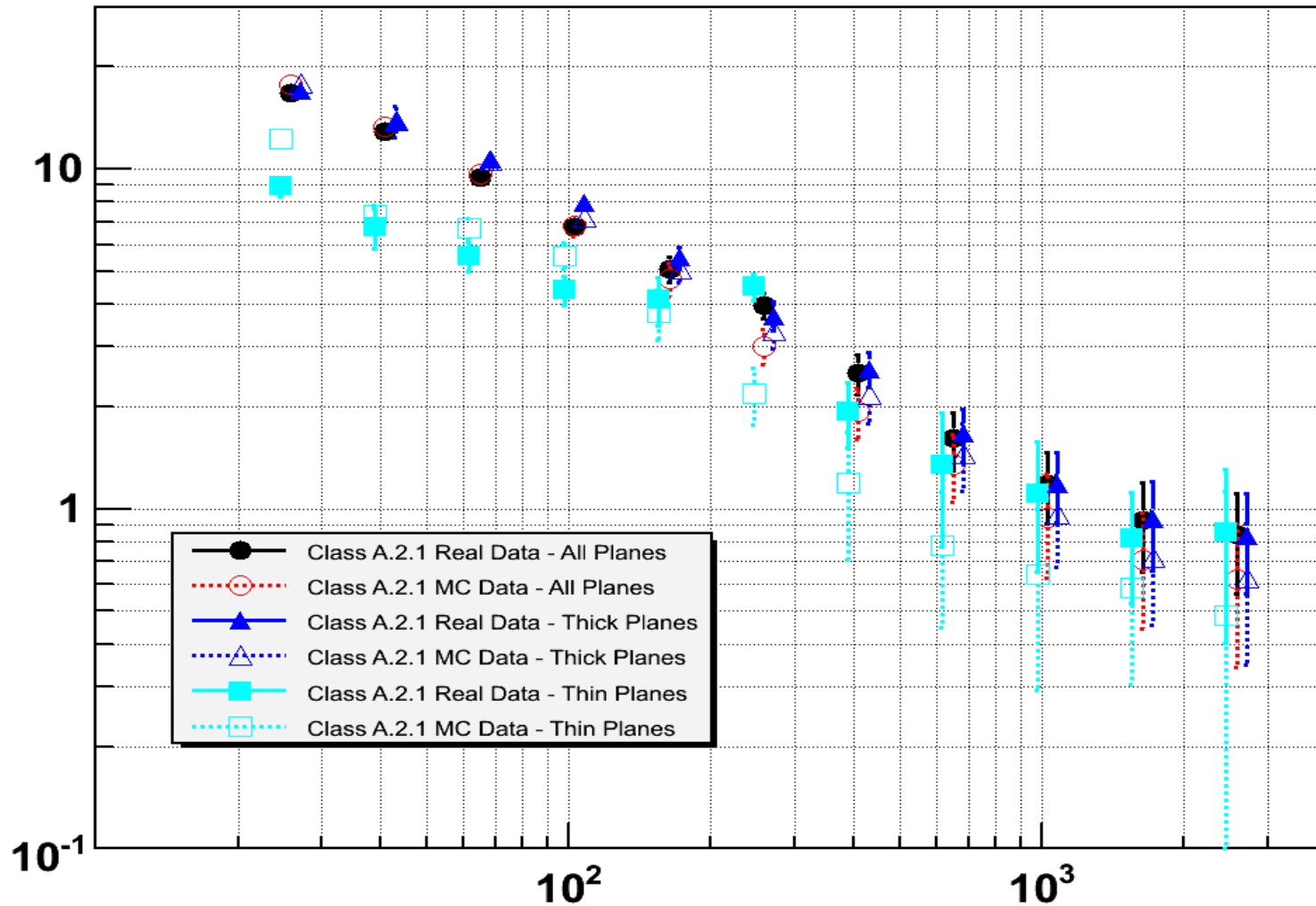


# Angle 95% to 68% ratio – Class A.1.1 at 0 Deg



# Angle at 68% - Class A.2.1 - 0 Deg incidence

Tower 3 - Angular Resolution Vs. Reconstructed Energy at Normal Incidence (2.5 GeV Electron beam)



# Angle at 68% - Classes A, B and C - 30 Deg incidence

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