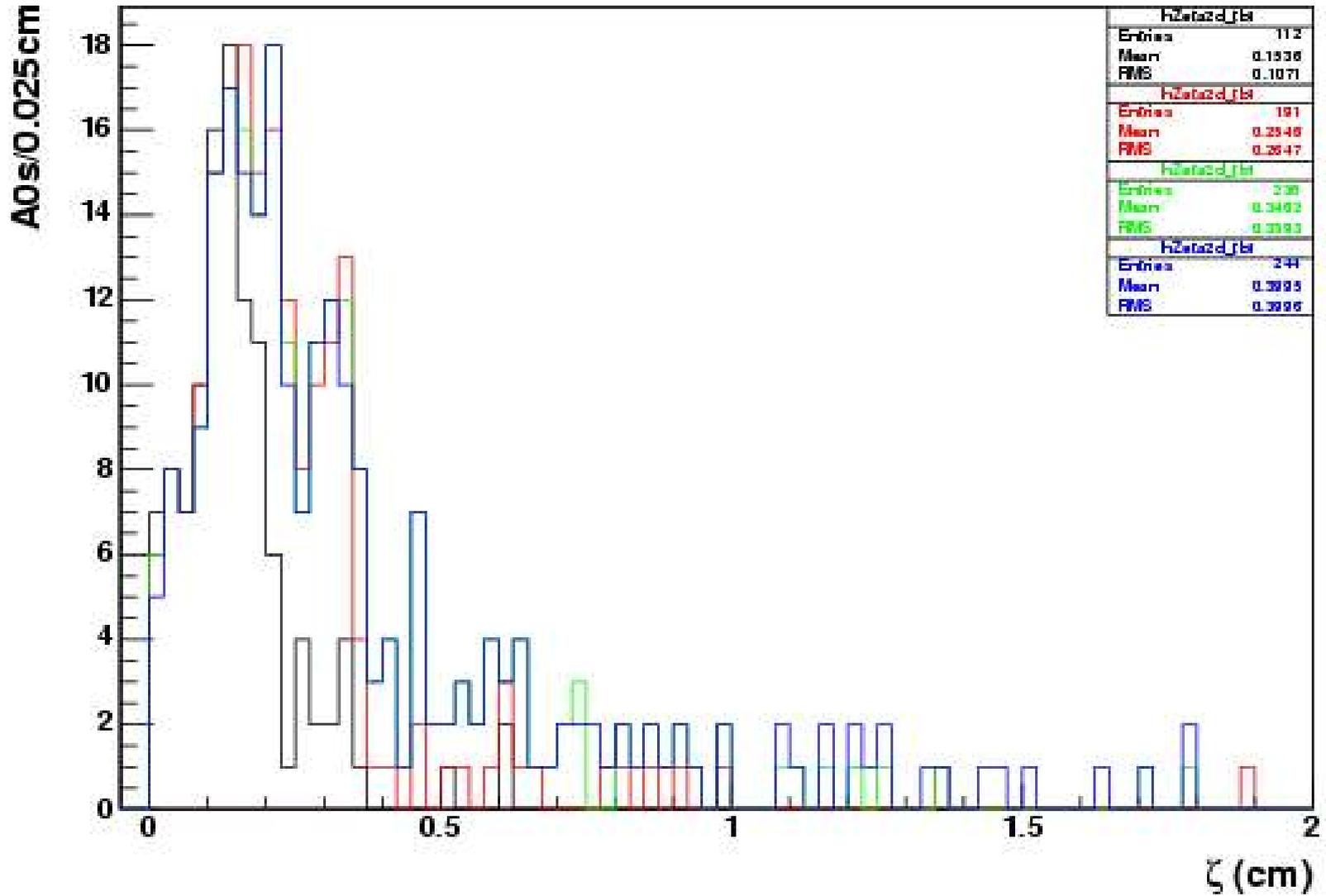


Displaced Vertex Analysis

- Each Signal MC is run with a different maximum SecVtx d0 cut
 - $d0 < 0.15\text{cm}$ (default) black
 - $d0 < 0.30\text{cm}$ red
 - $d0 < 0.60\text{cm}$ green
 - $d0 < 1.20\text{cm}$ blue
- QCD bb MC is displayed in gray
- First shown are canvases comparing the different signal MCs to one another
- Second is a comparison between
 - Signal MC where an A0 has two SecVtx tags
 - Signal MC where an event has one SecVtx tags for each A0, or the wrong combination
 - Background QCD MC

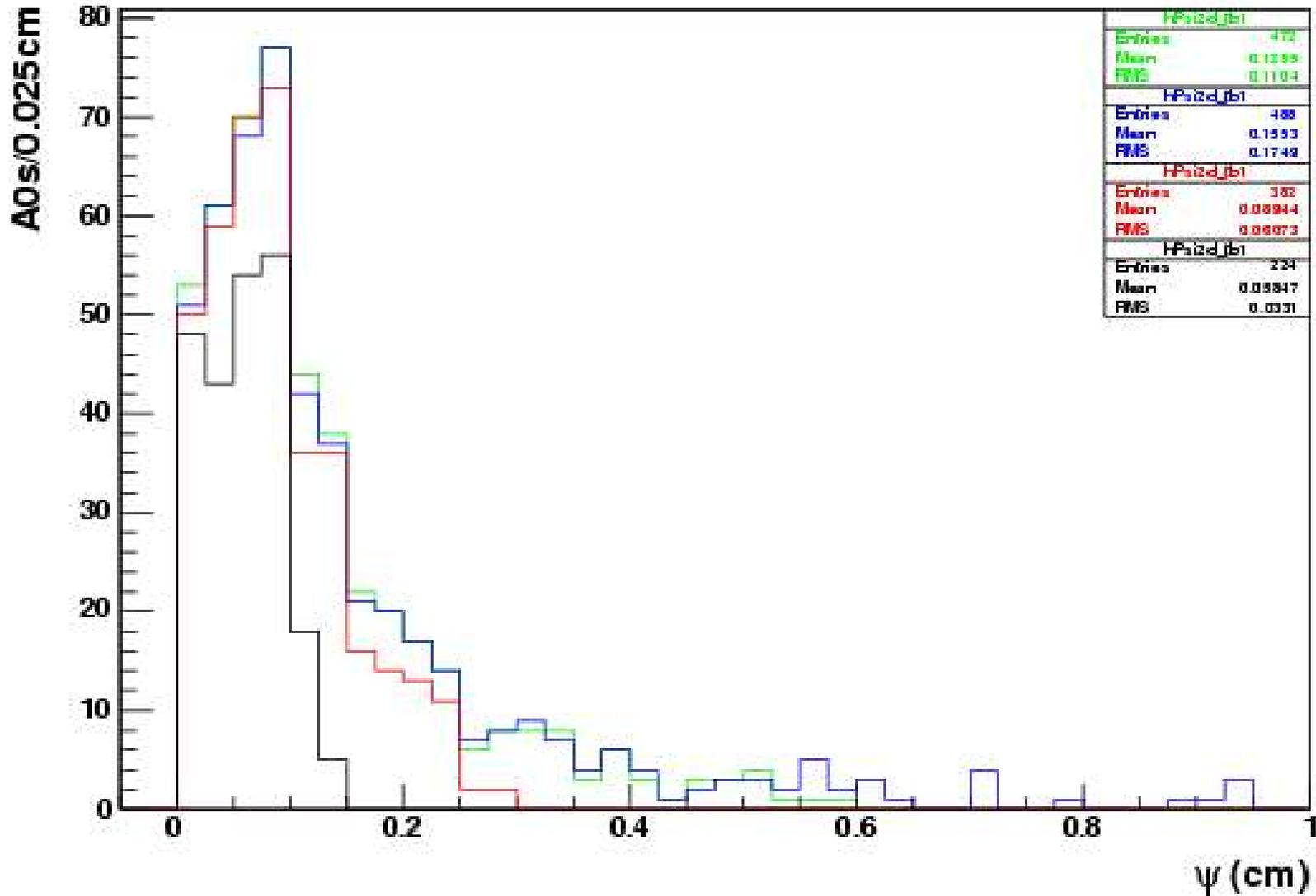
Displaced Vertex Analysis

ζ : Distance between reconstructed Jet Intersection and Primary Vertex - 2 tagged AOs w/ central jets



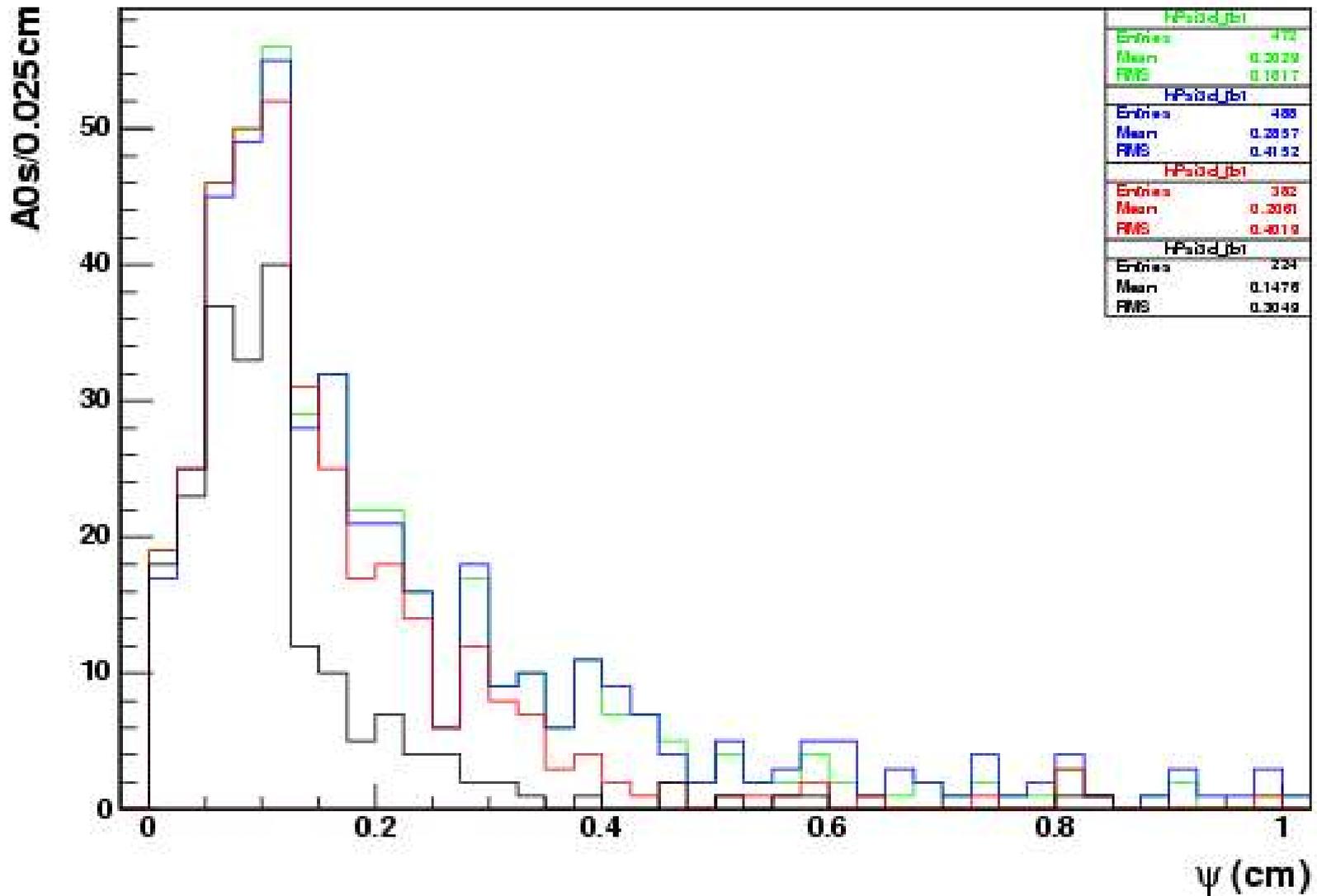
Displaced Vertex Analysis

ψ : Distance of closest approach between SecVtx momentum path Primary Vertex - 2 tagged A0s w/ central jets

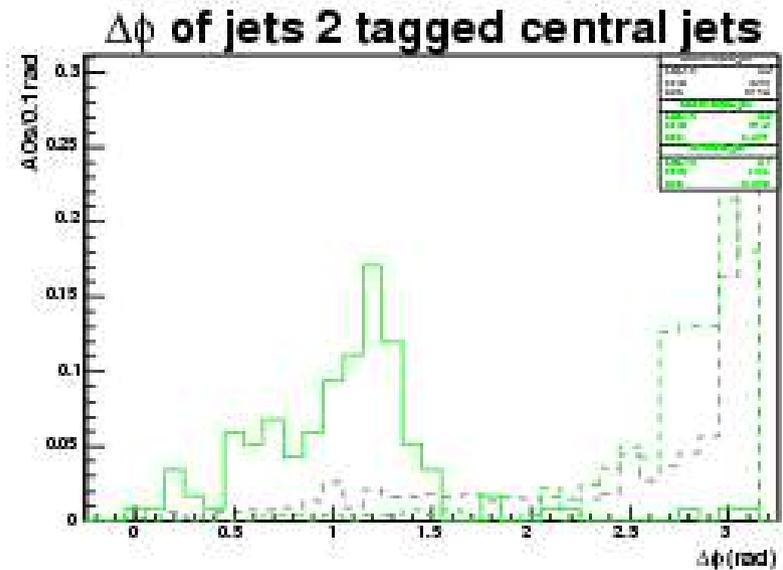
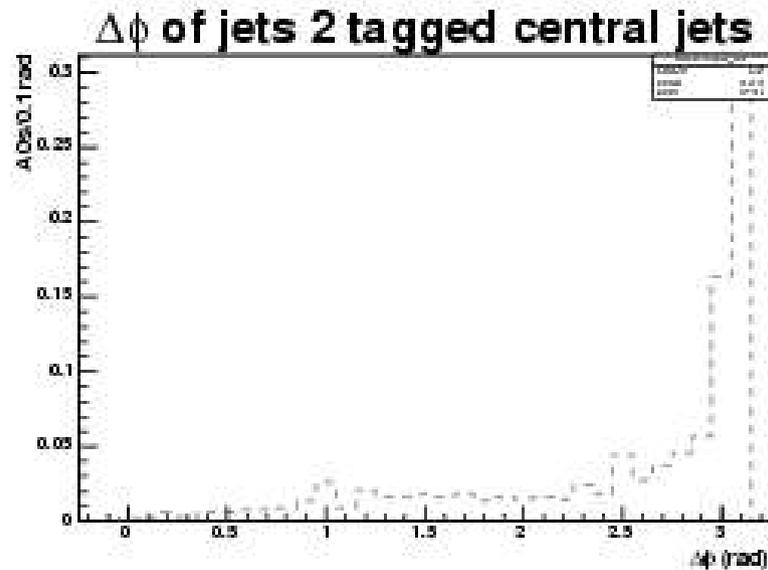
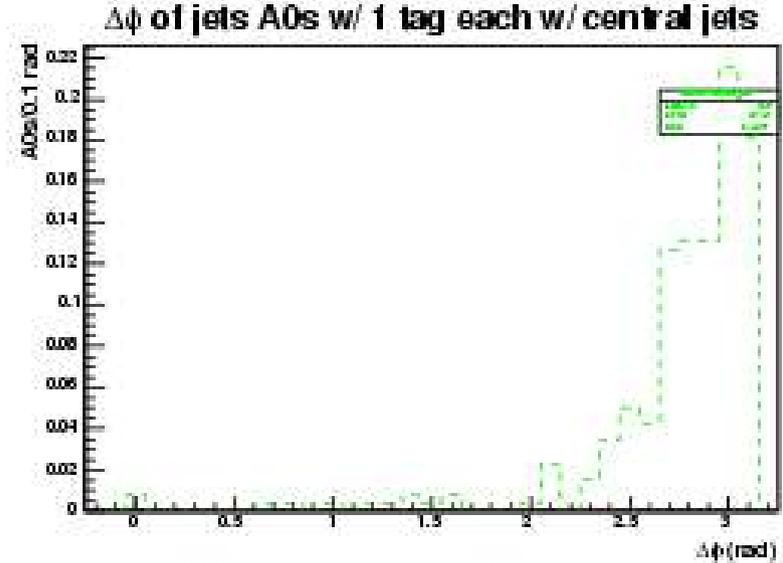
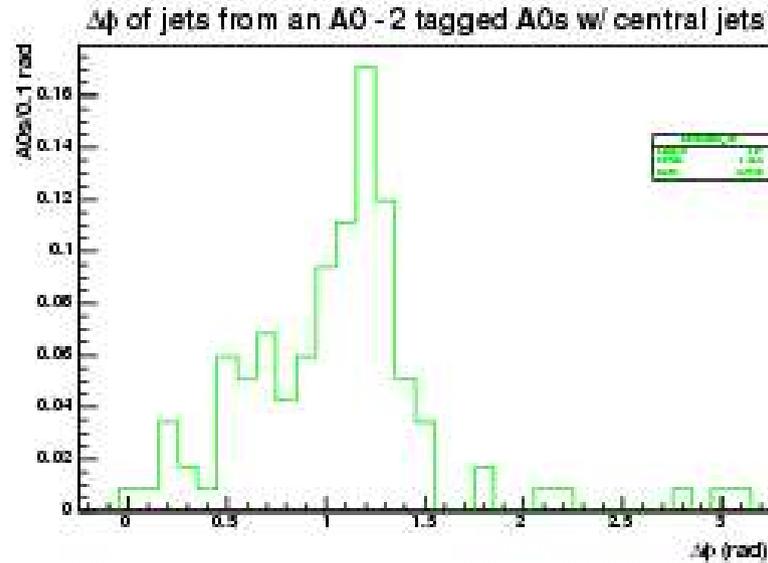


Displaced Vertex Analysis

ψ : Distance of closest approach between SecVtx momentum path Primary Vertex - 2 tagged A0s w/ central jets

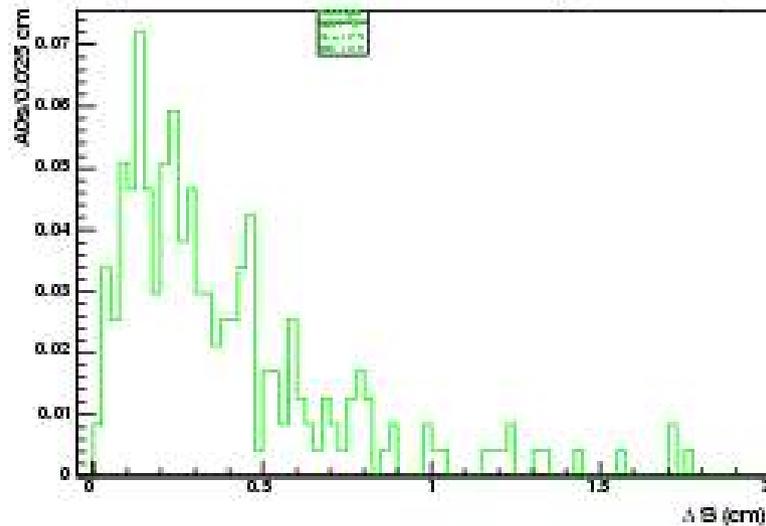


Displaced Vertex Analysis

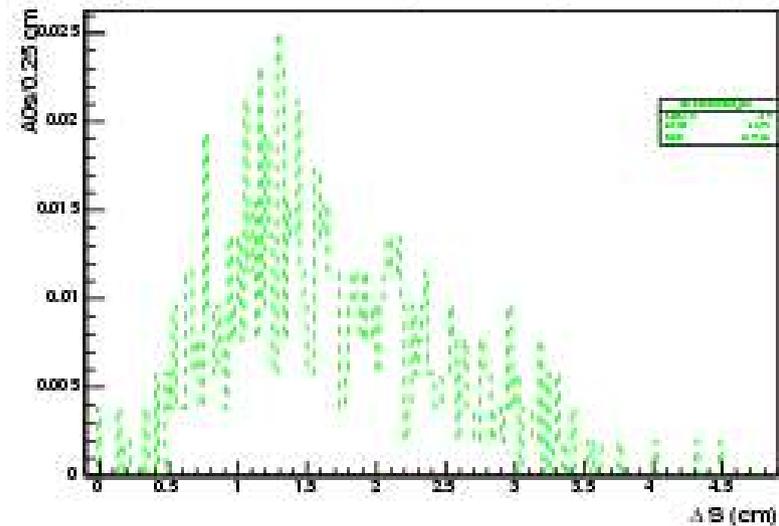


Displaced Vertex Analysis

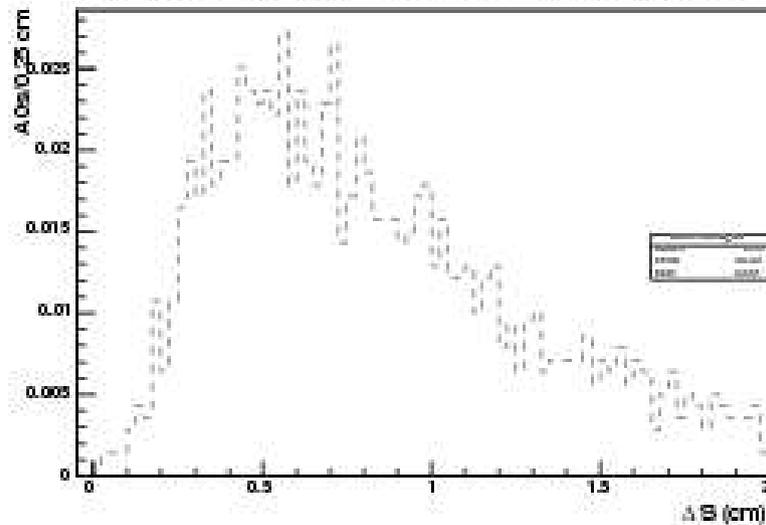
ΔS_{2d} of SecVtx vertices from jets from an A0 - 2 tagged A0s w/ central jets



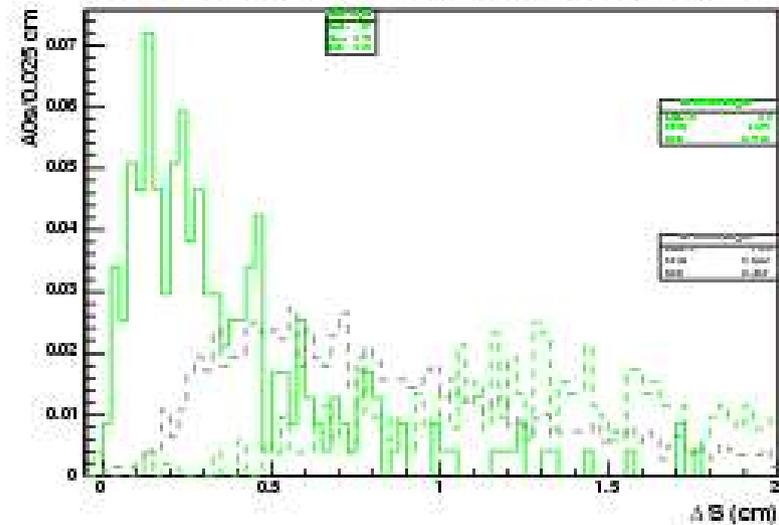
ΔS_{2d} of SecVtx vertices from jets A0s w/ 1 tag each w/ central jets



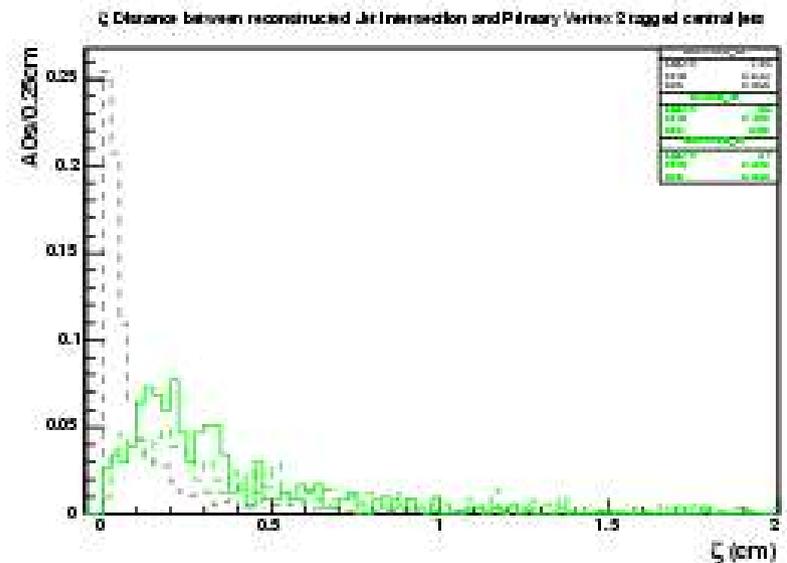
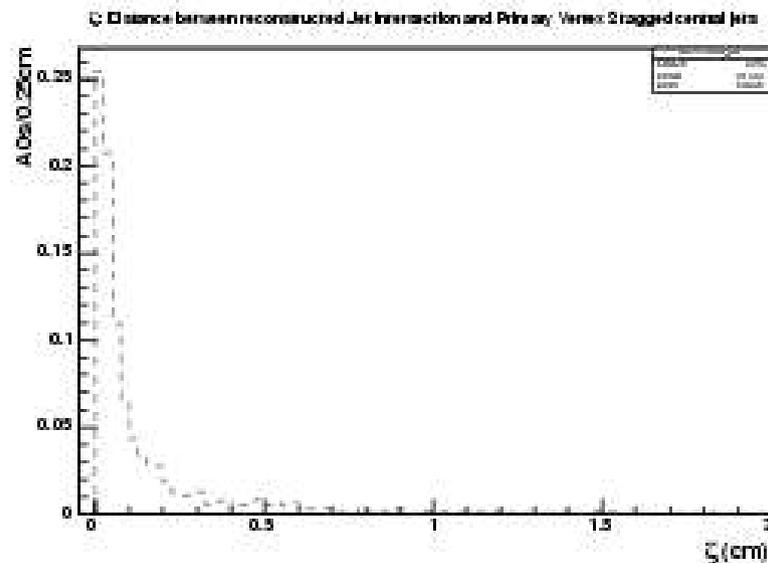
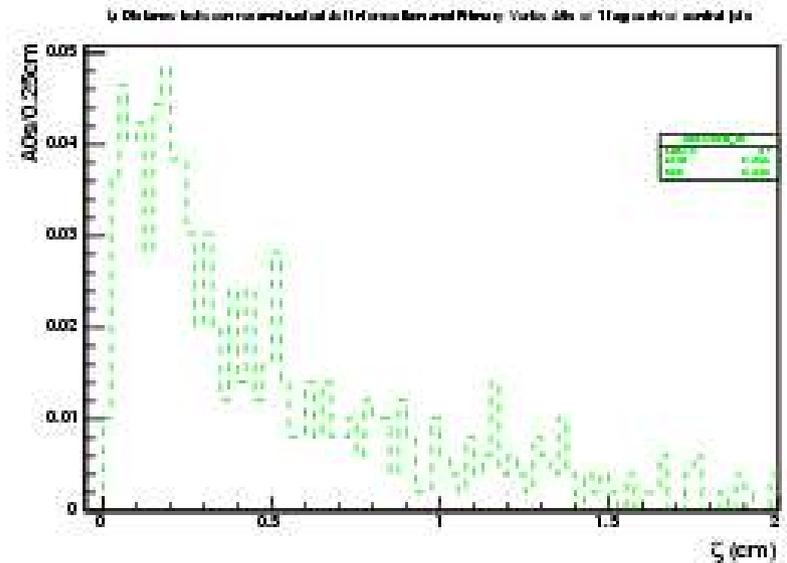
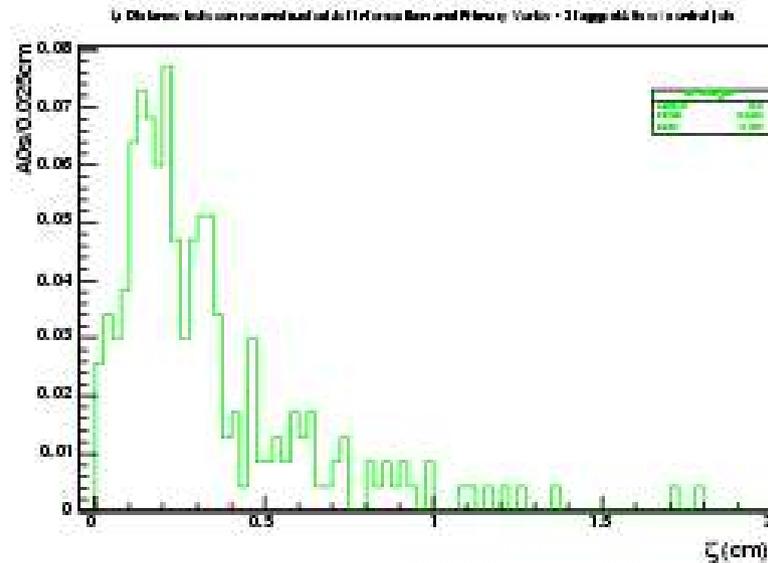
ΔS_{2d} of SecVtx vertices from jets 2 tagged central jets



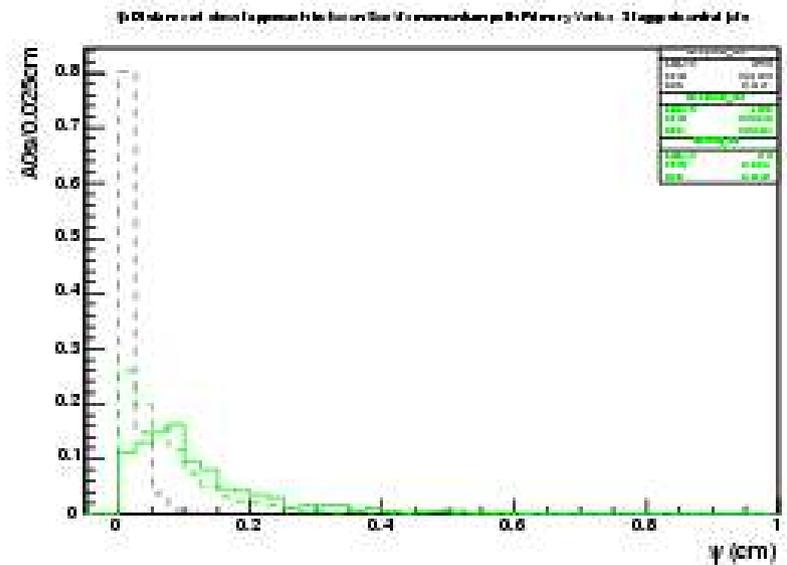
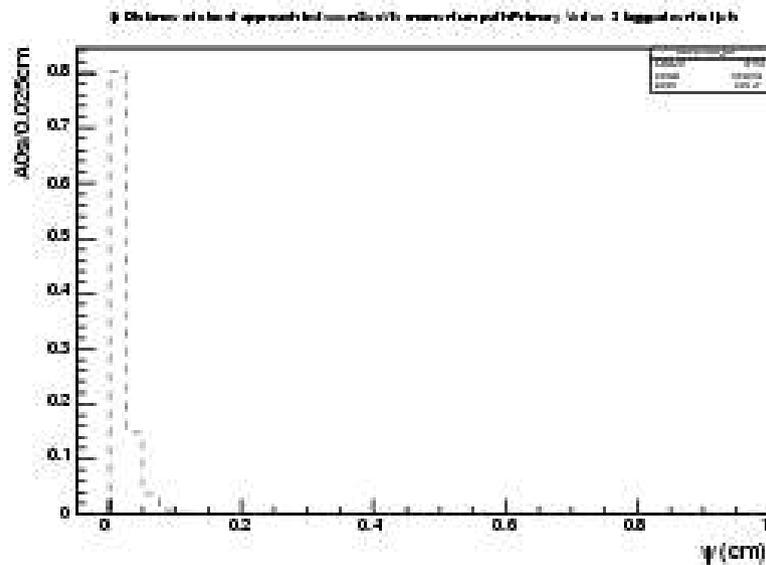
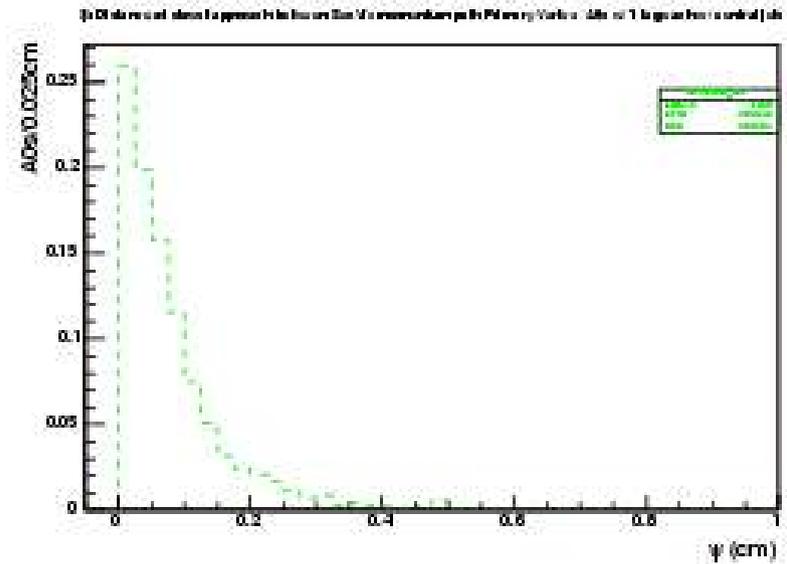
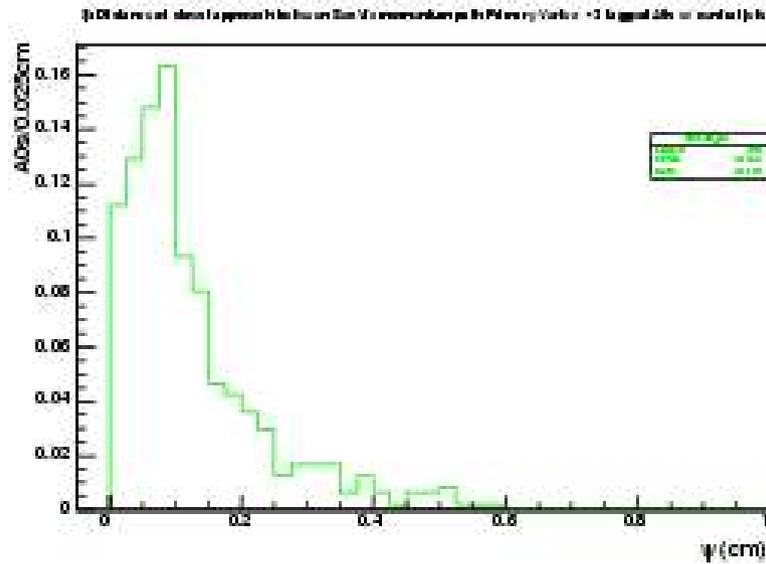
ΔS_{2d} of SecVtx vertices from jets from an A0 - 2 tagged A0s w/ central jets



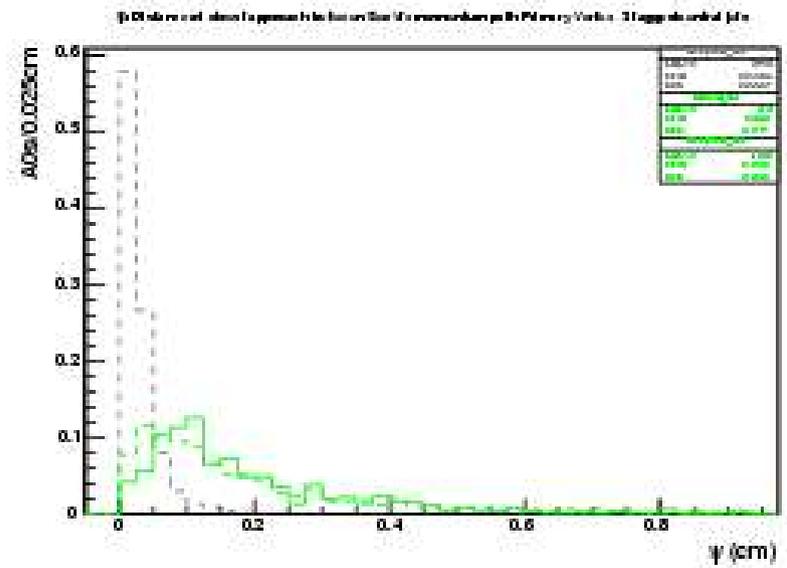
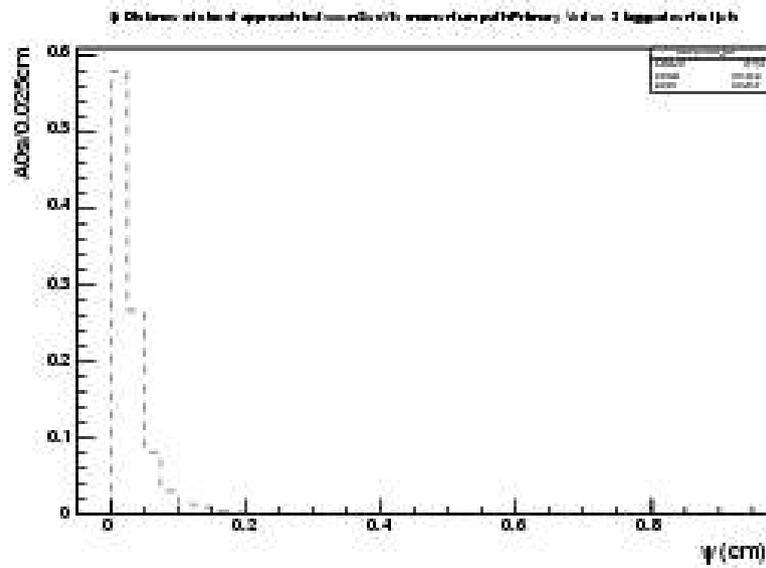
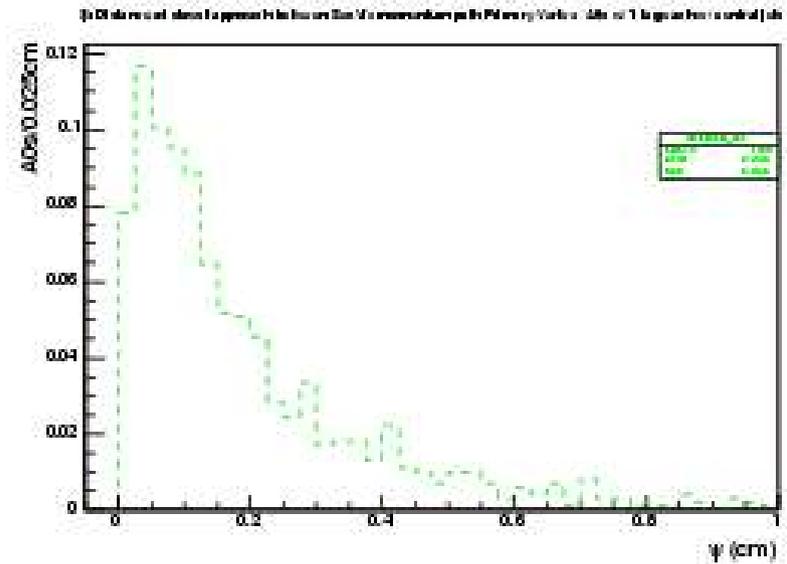
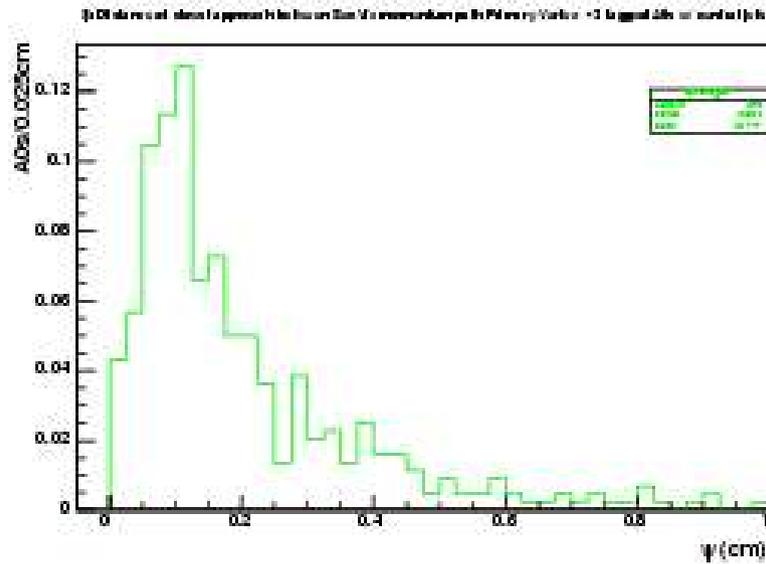
Displaced Vertex Analysis



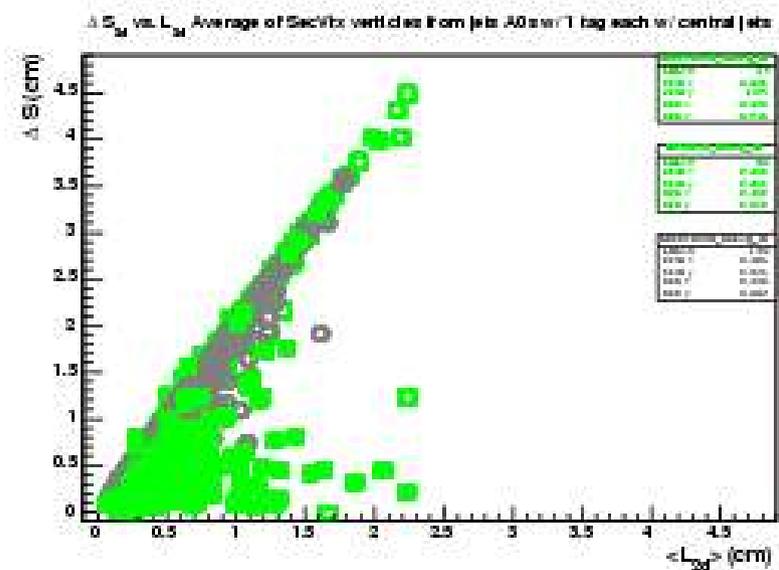
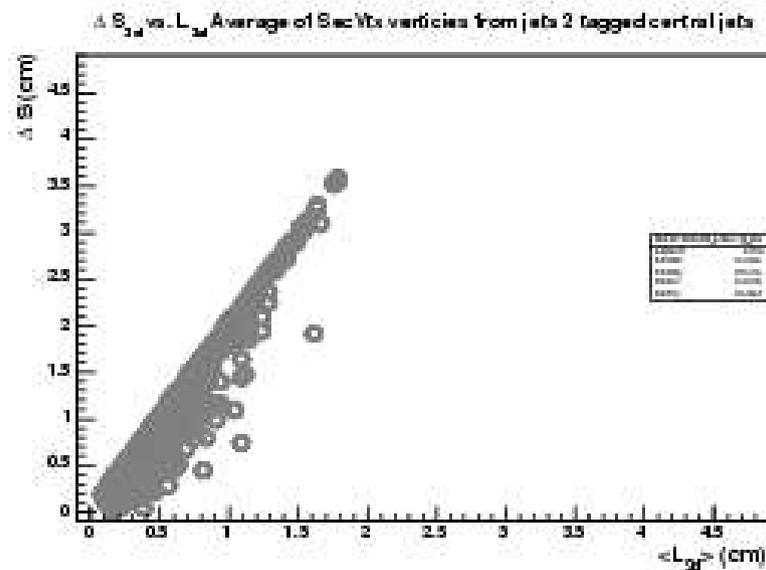
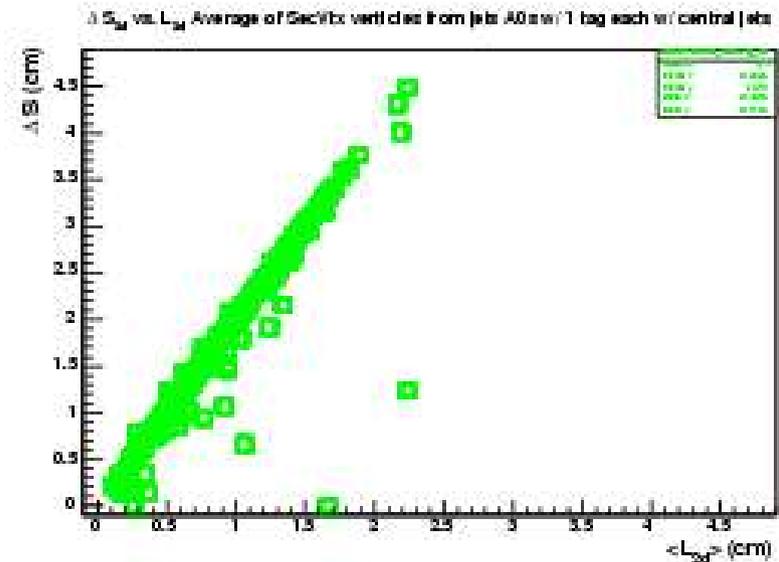
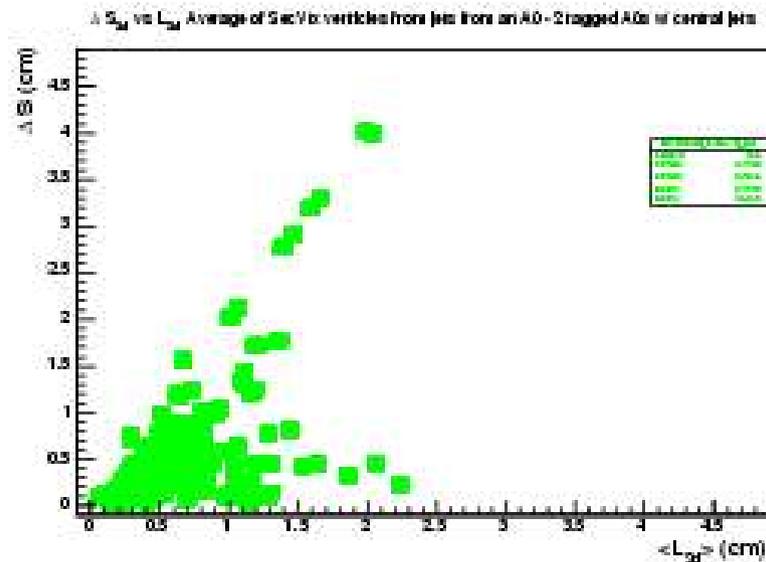
Displaced Vertex Analysis



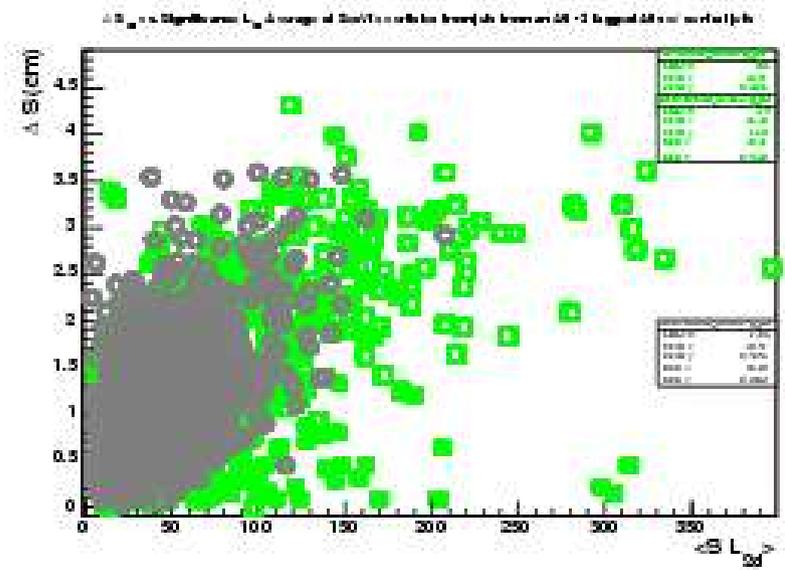
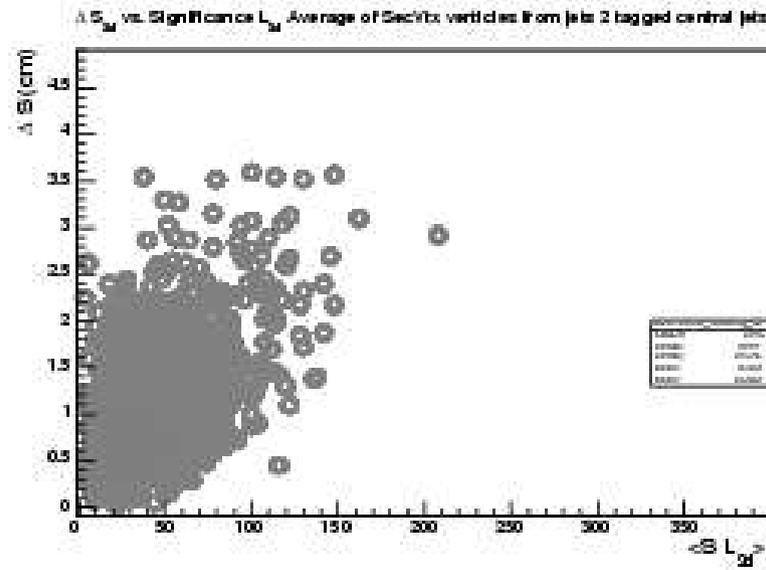
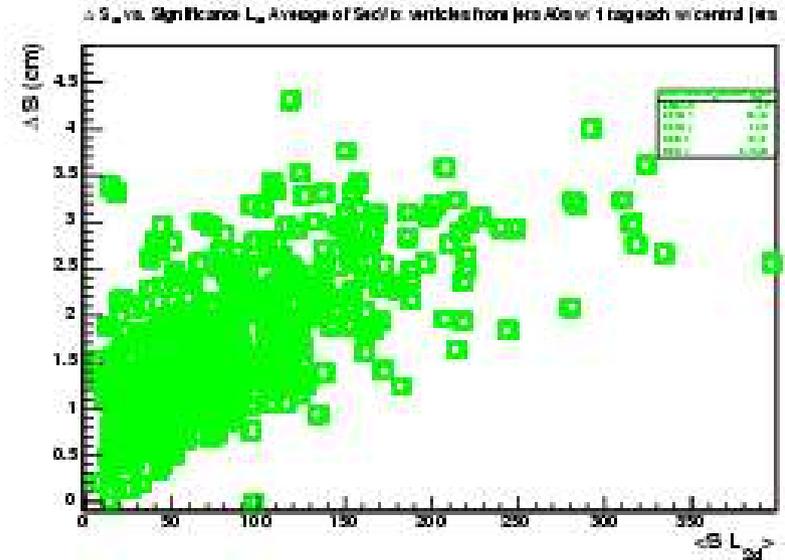
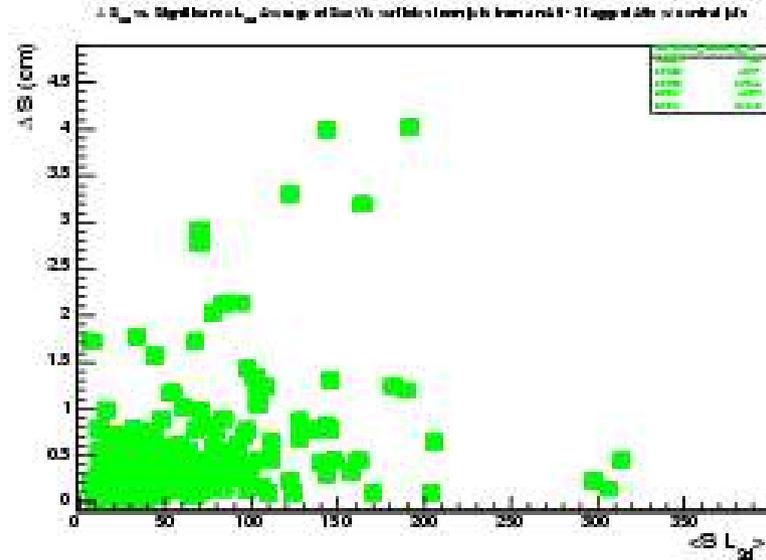
Displaced Vertex Analysis



Displaced Vertex Analysis

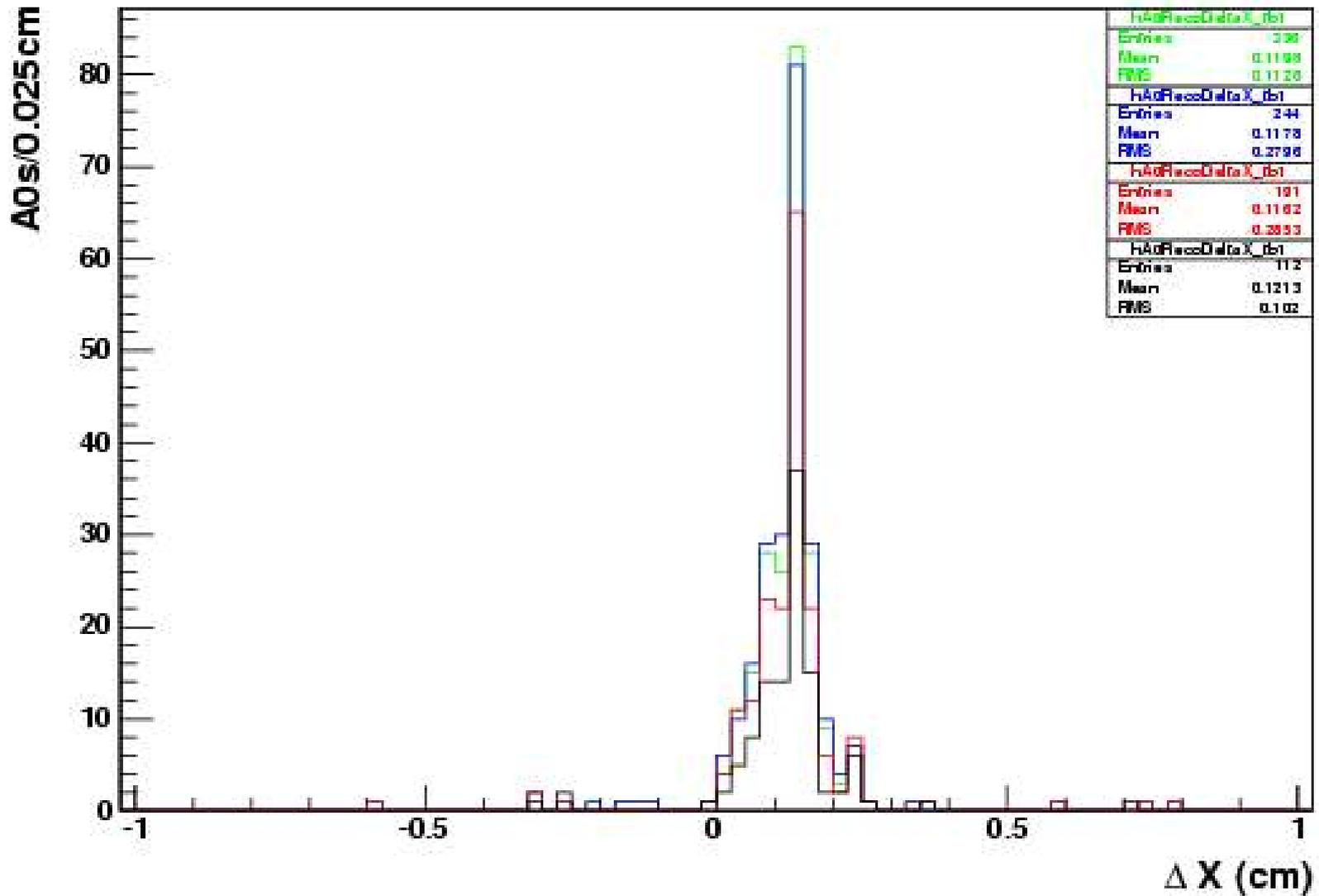


Displaced Vertex Analysis



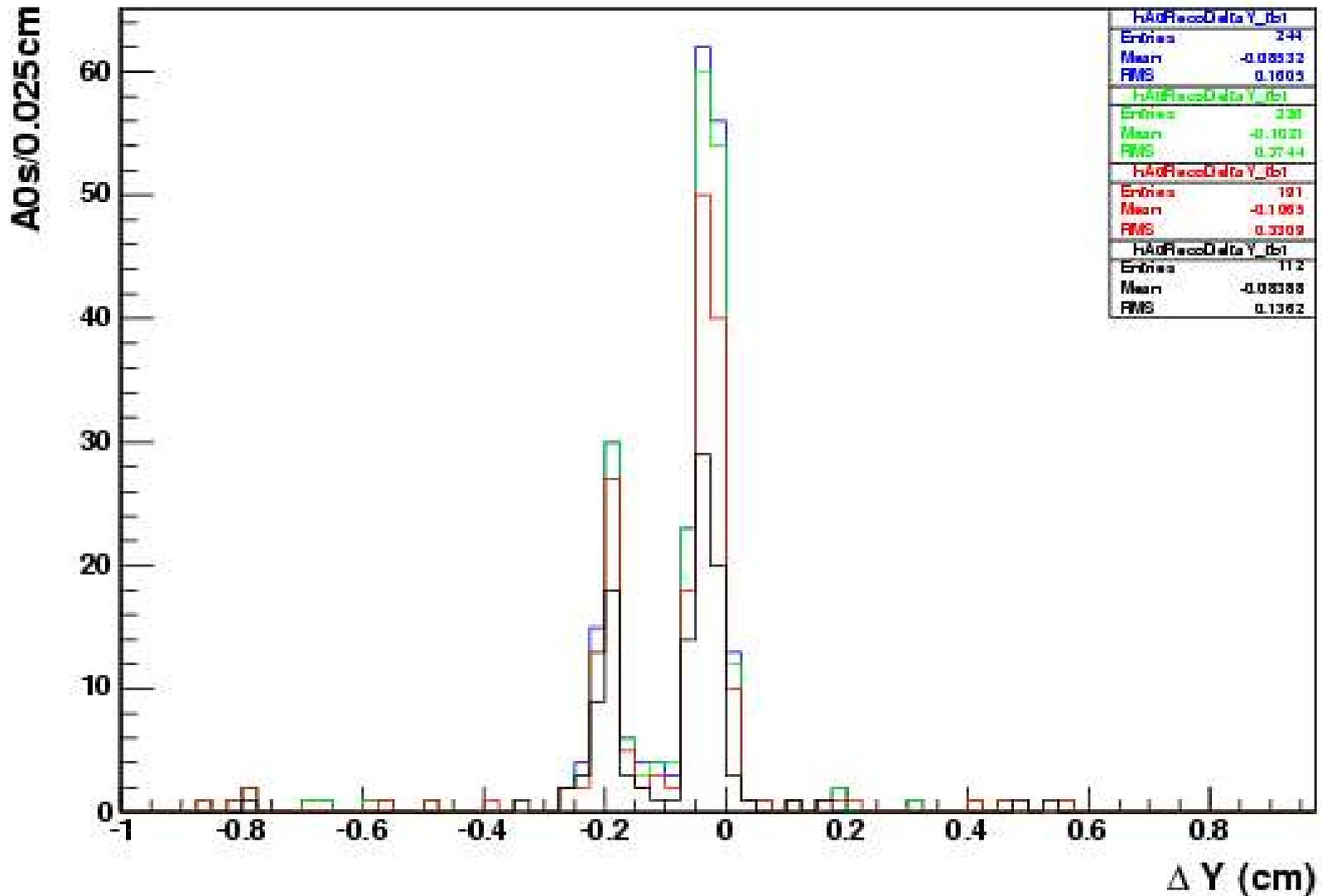
Displaced Vertex Analysis

$|\Delta X|$ between reconstructed and HEPG A0 Decay Vertex - 2 tagged A0s w/ central jets



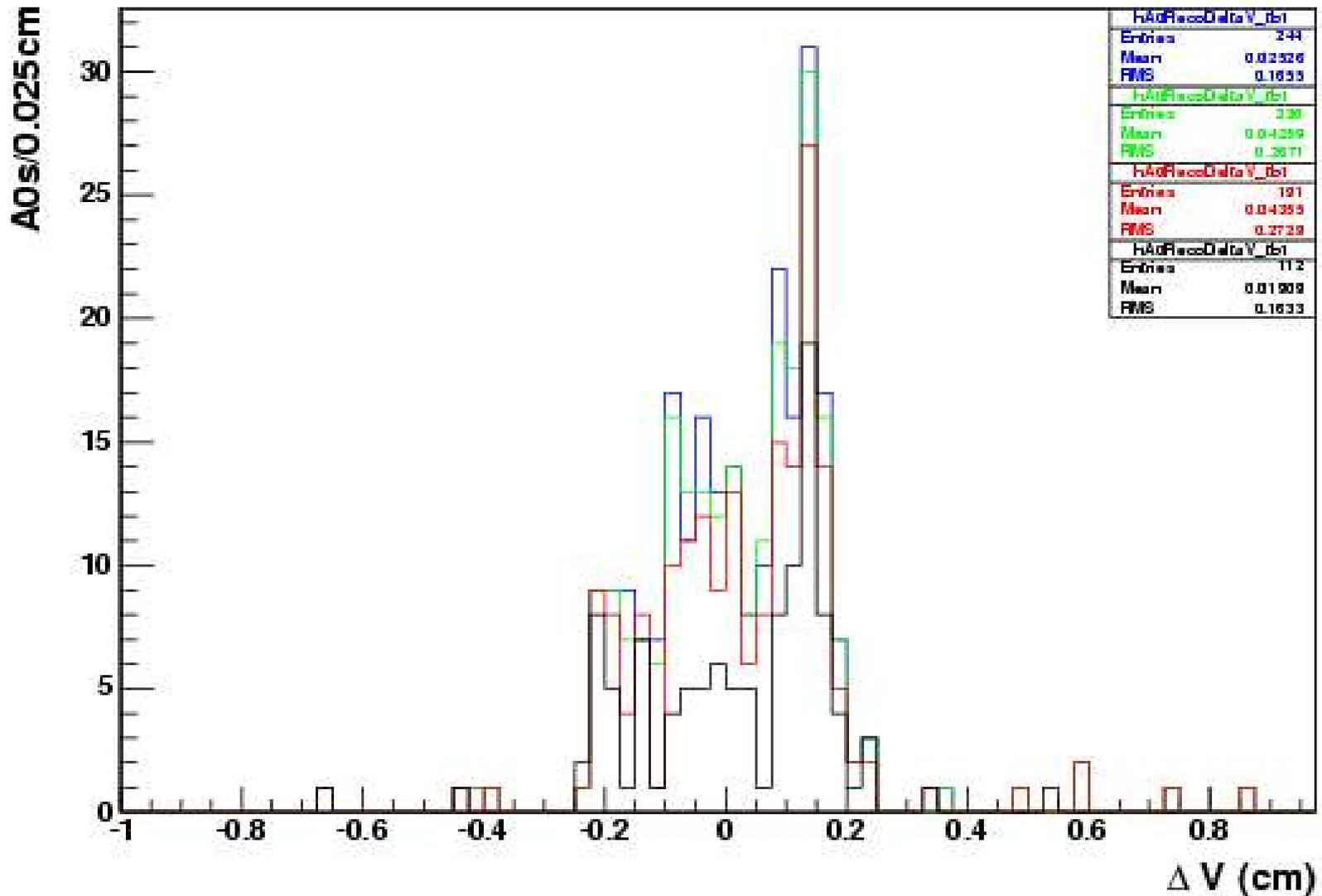
Displaced Vertex Analysis

$|\Delta Y|$ between reconstructed and HEPG A0 Decay Vertex - 2 tagged A0s w/ central jets



Displaced Vertex Analysis

$|\Delta V|$ between reconstructed and HEPG A0 Decay Vertex - 2 tagged A0s w/ central jets



Displaced Vertex Analysis

$|\Delta U|$ between reconstructed and HEPG A0 Decay Vertex - 2 tagged A0s w/ central jets

