

Conformal Tracking efficiency with $Z \rightarrow uds$ events CLIC_o3_v10

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Software Meeting 16.5.2017

SETTINGS

- ☆ Z→uds
- ☆ E = {91, 100, 200, 380, 500, 750, 1000, 2000, 3000}
- ☆ iLCSoft 25.4.2017
- ☆ CLIC_o3_v10 detector model
- ☆ Conformal Tracking (VXD) + Extrapolator (Tracker)

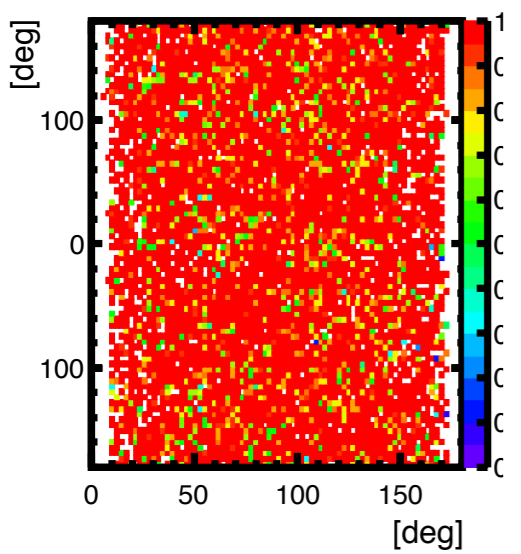
DEFINITIONS

Efficiency = $N(\text{reconstructed})/N(\text{reconstructable})$

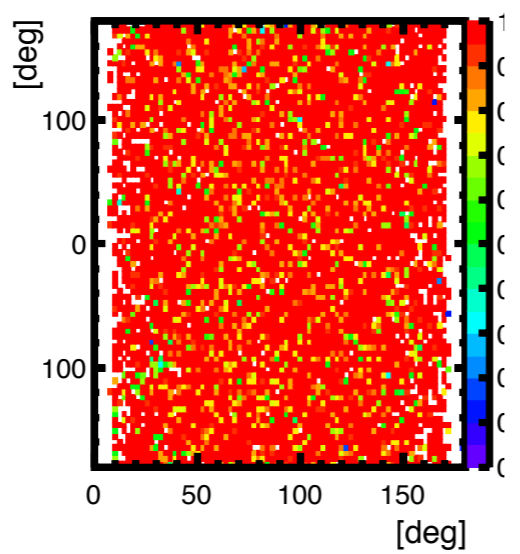
Reconstructable (ILDLike cut) = {charged, stable particles with $p_T > 0.1$ GeV, $\cos\theta < 0.99$, 4 or more hits, IP in 10 cm}

Efficiency vs (theta, phi)

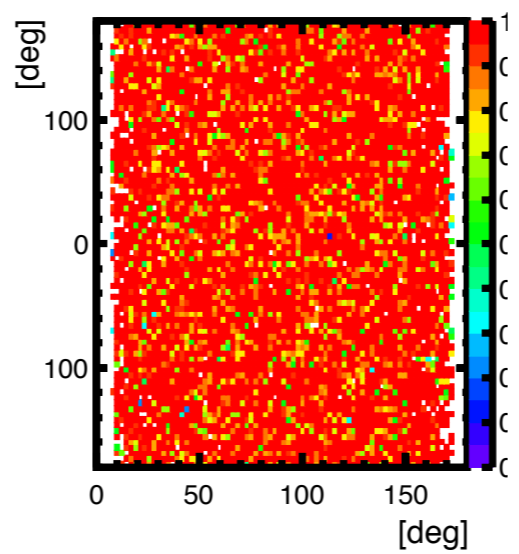
91GeV



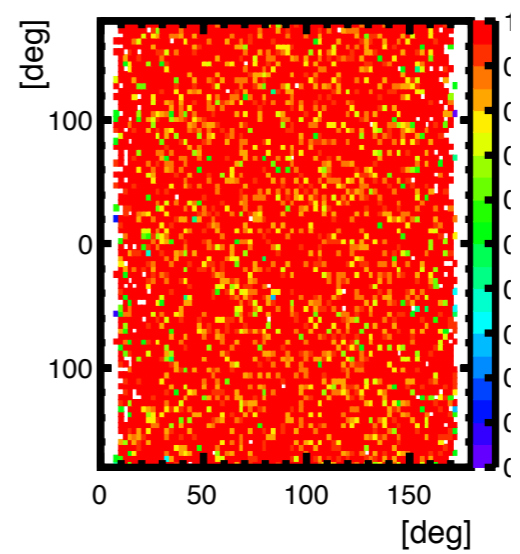
100GeV



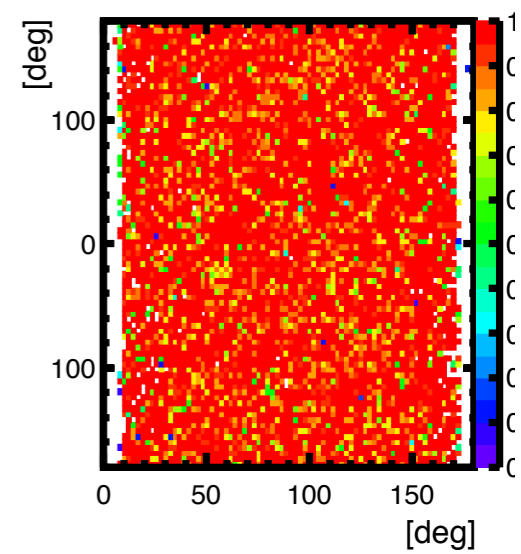
200GeV



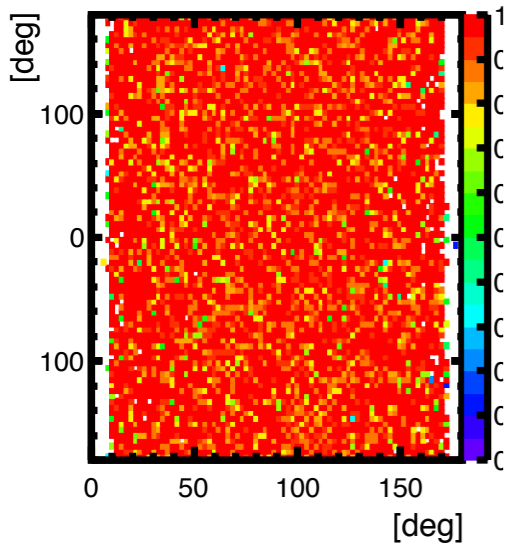
380GeV



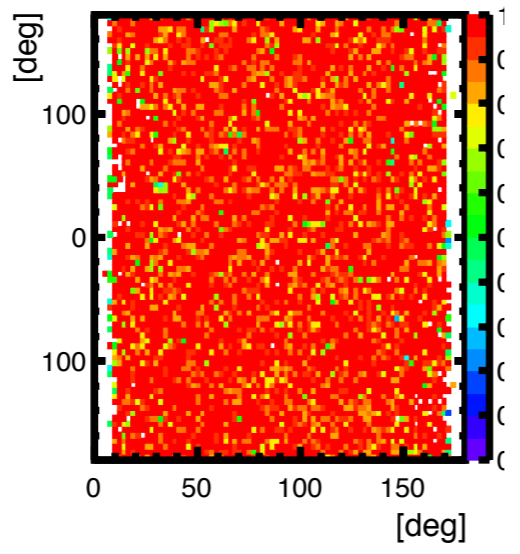
500GeV



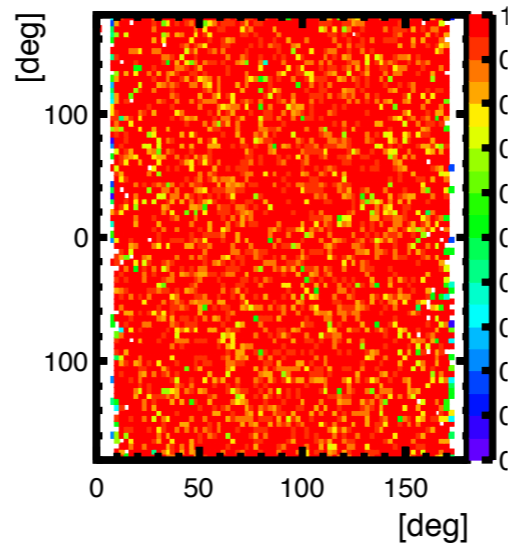
750GeV



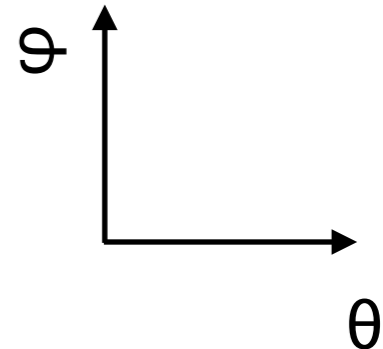
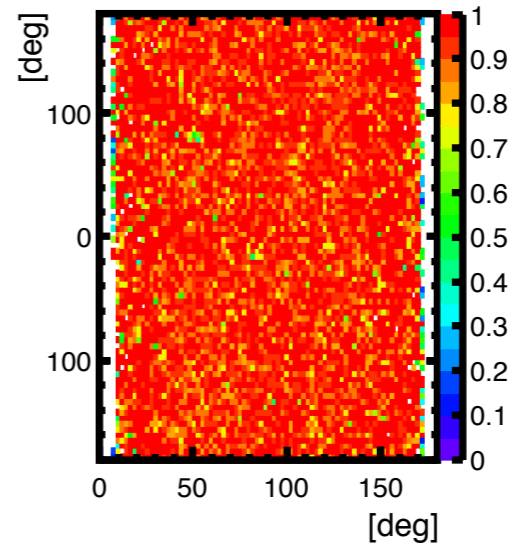
1TeV



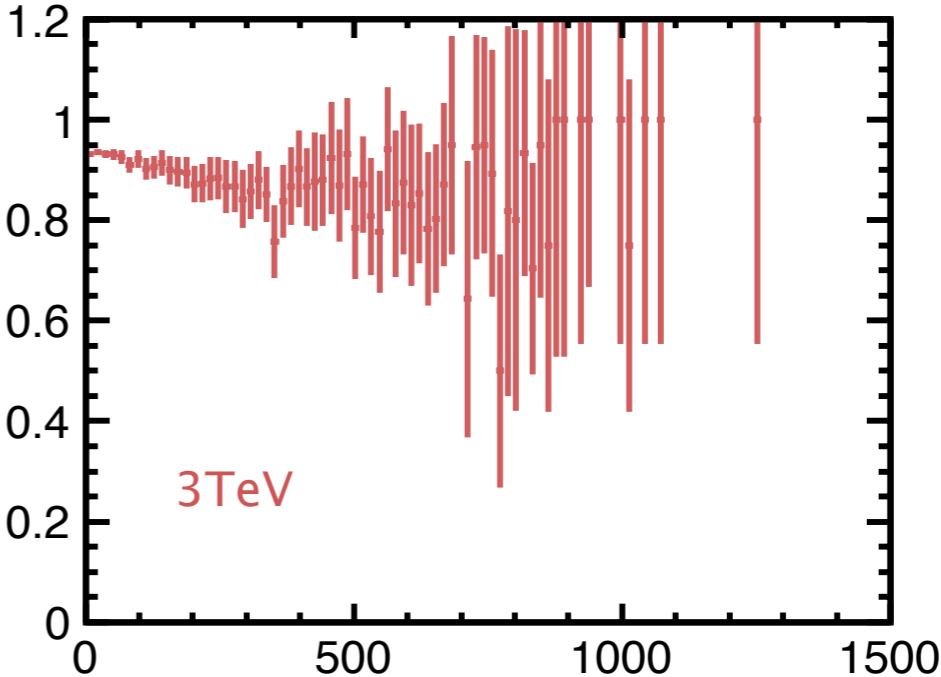
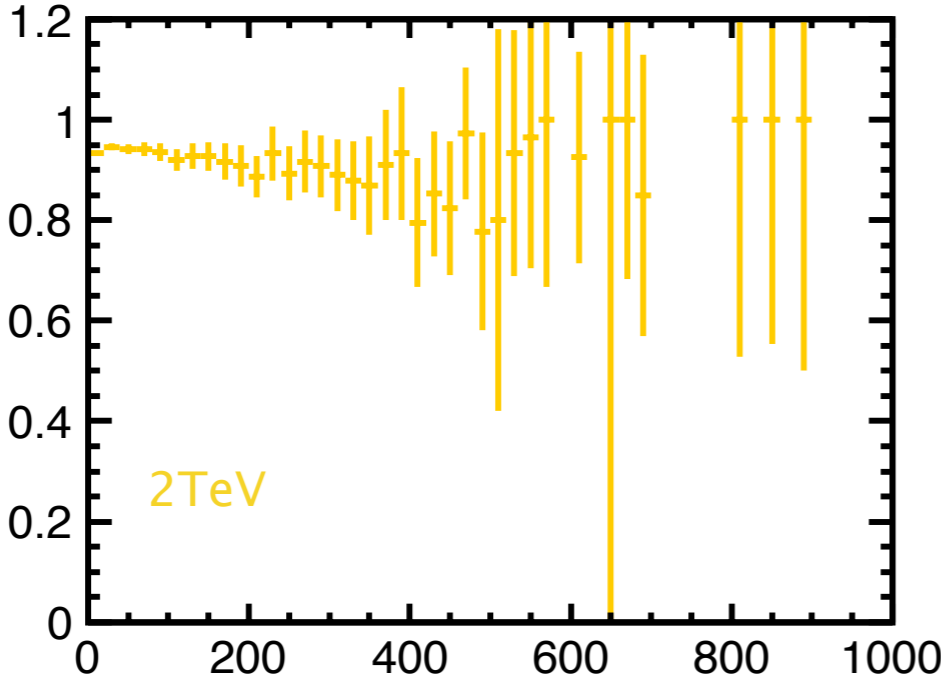
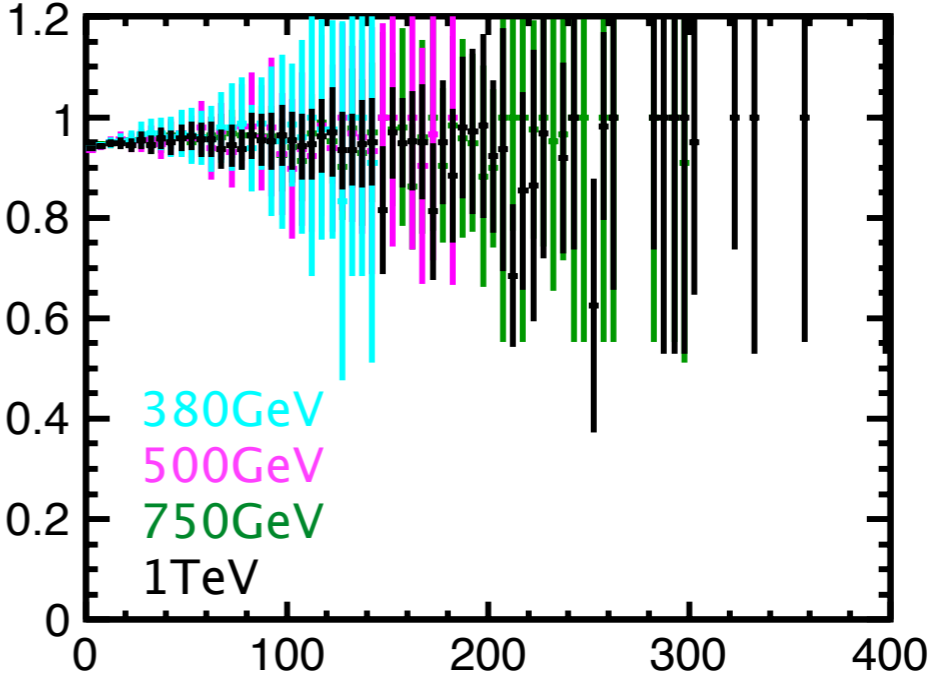
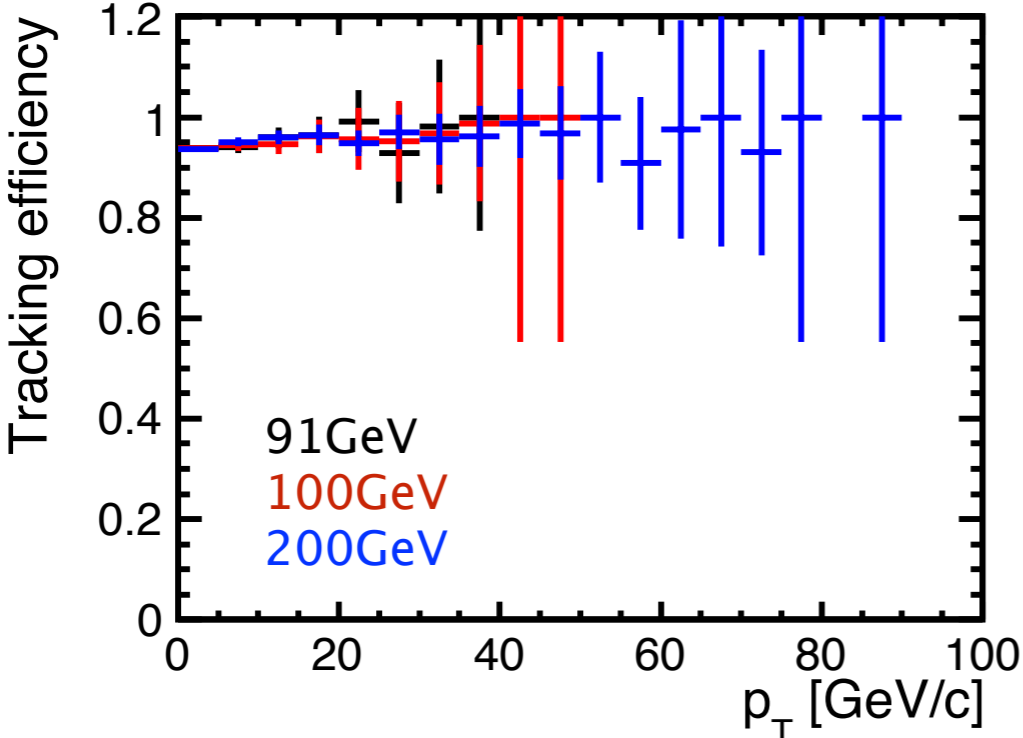
2TeV



3TeV



Efficiency vs pT

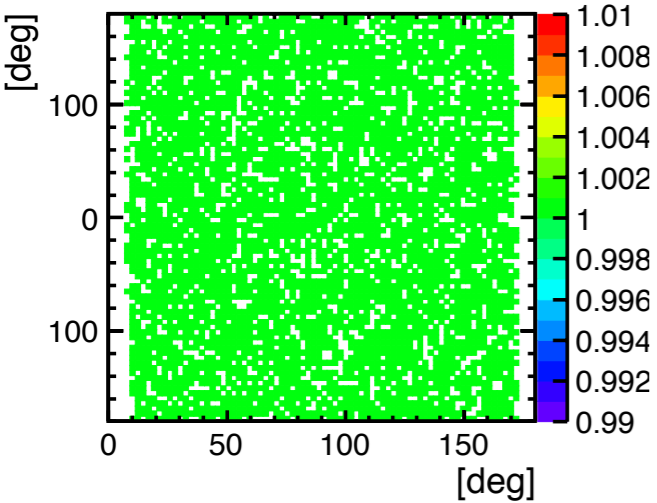
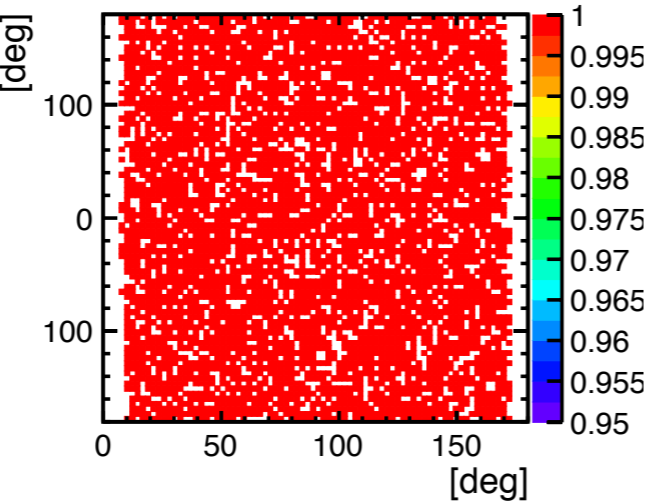
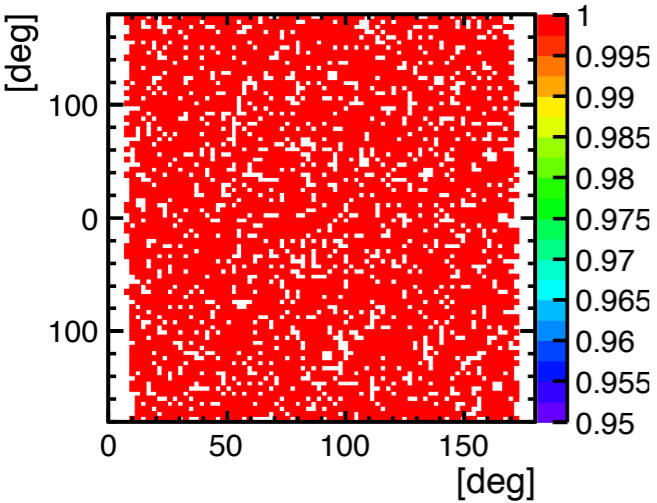


Conformal Tracking validation

10GeV
muons

HEAD 25.4

Daniel's fork

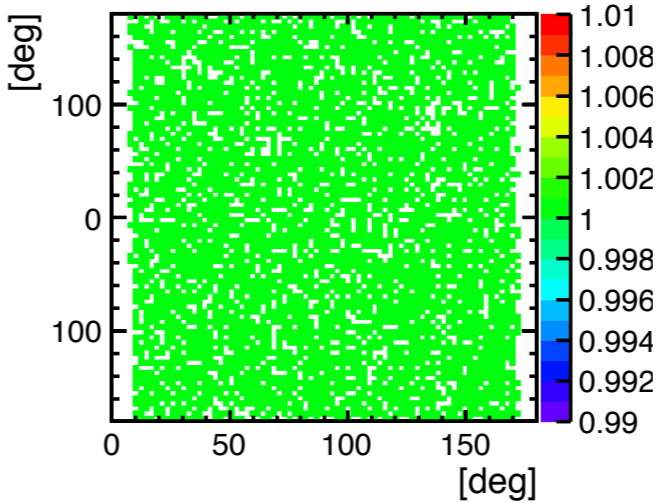
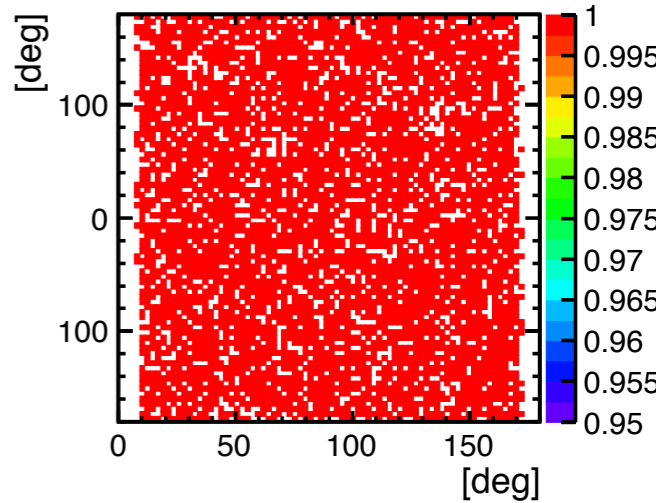
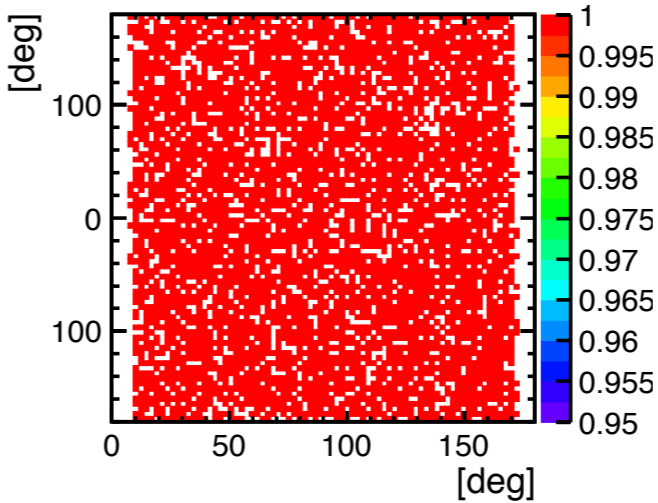


ratio

50GeV
muons

HEAD 25.4

Daniel's fork



ratio