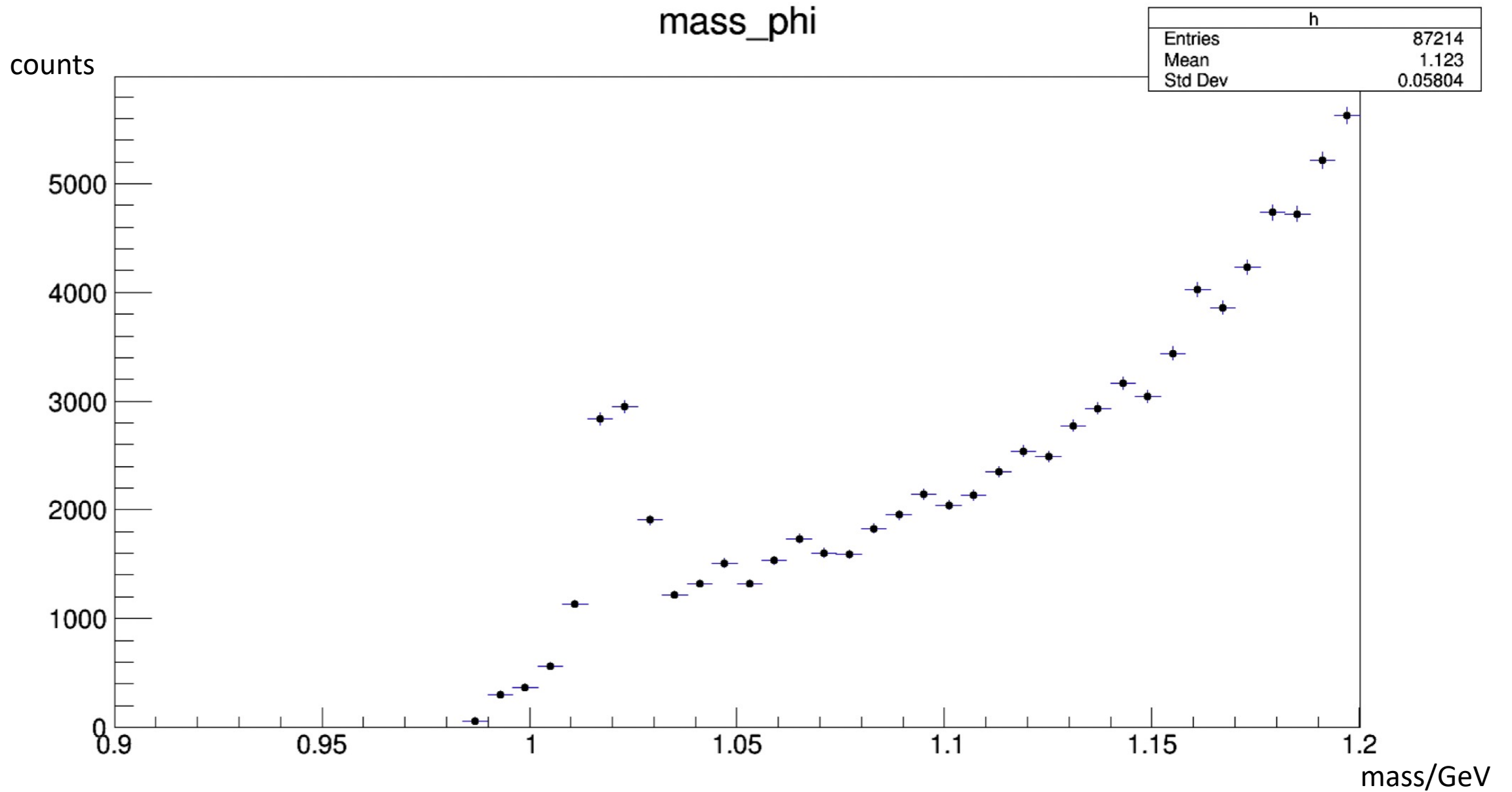


$\gamma p \rightarrow \phi p \rightarrow K^+ K^- p$ analysis

- requiring 3 charged tracks: 2 positive and 1 negative
- kinematic fit: common vertex
- reconstructed ϕ meson mass: $0.8\text{GeV} < m_\phi < 1.2\text{GeV}$
- coplanarity between ϕ and p: $170^\circ < \Delta\phi_{\phi-p} < 190^\circ$
- confidence level: $\text{CL} > 0.00002$
- photon energy: $E_\gamma > 6\text{GeV}$
- $|E_\gamma + m_N - E_\phi - E_p| < 1\text{GeV}$
- vertex cut: $51\text{cm} < z_{\text{vertex}} < 79\text{cm}$
- loose PID cuts: same as standard GlueX analysis

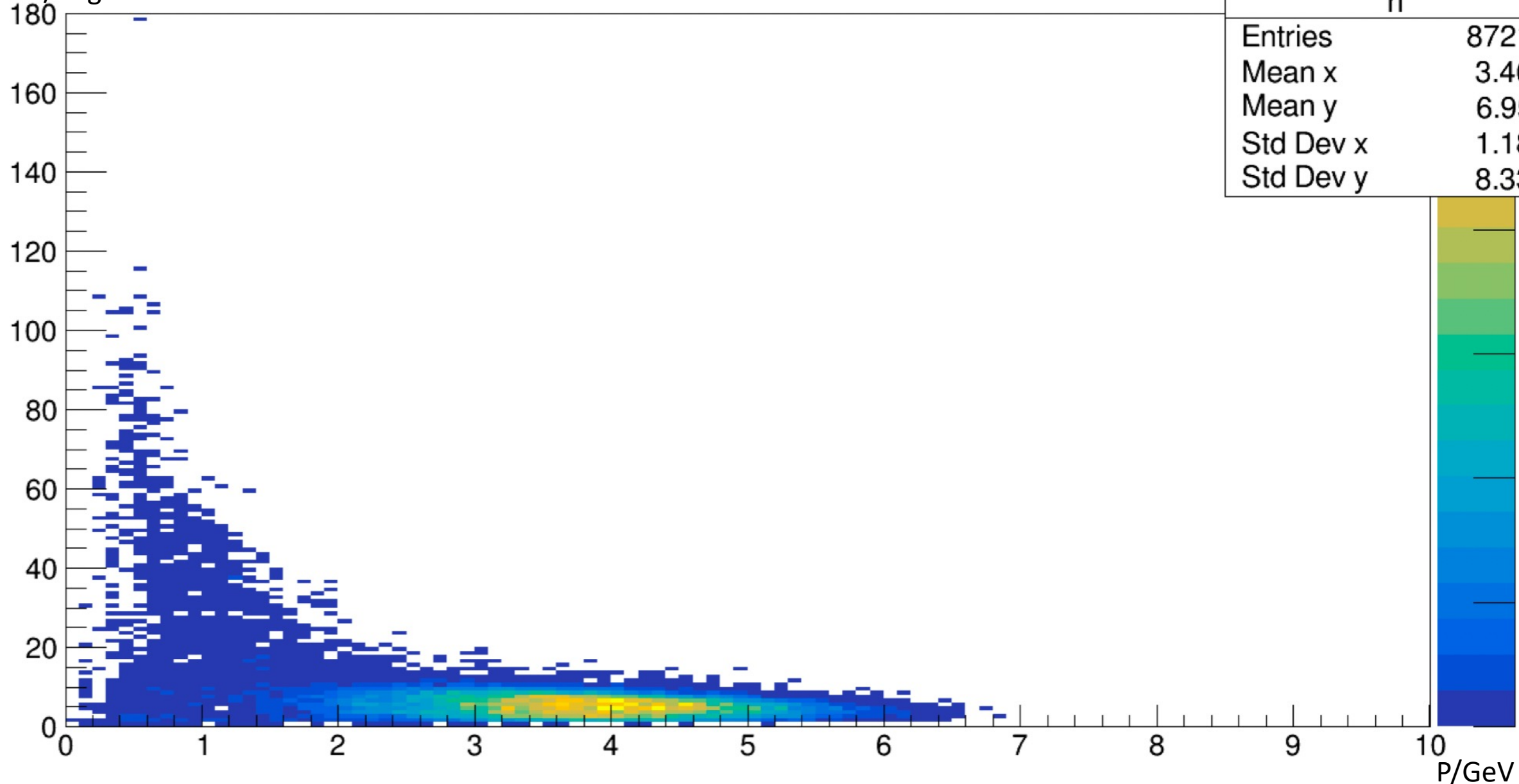
40% data of run 90070, helium-4 target

mass of the reconstructed phi meson



theta vs momentum: KPlus

theta/deg

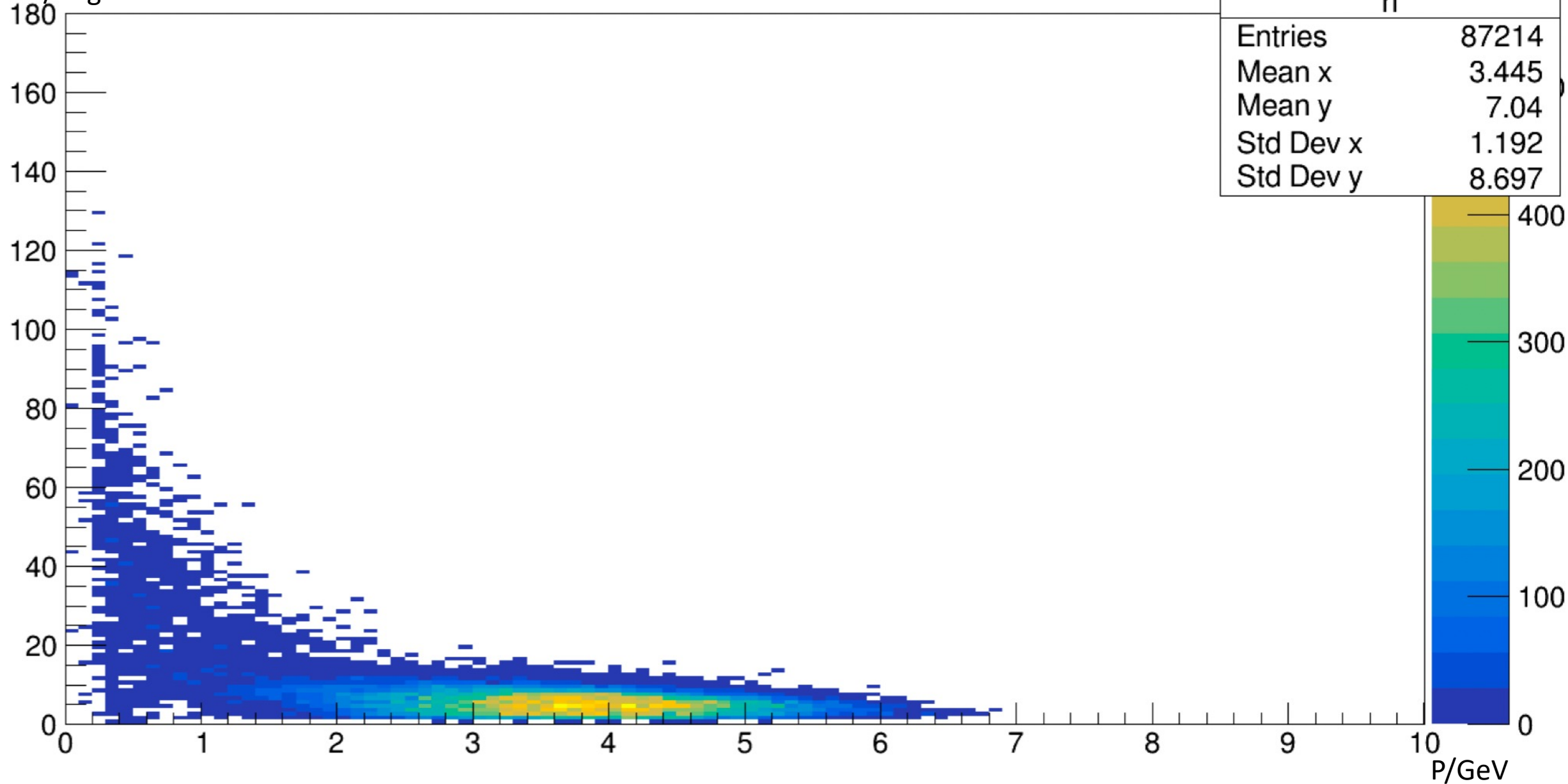


h	
Entries	87214
Mean x	3.464
Mean y	6.953
Std Dev x	1.186
Std Dev y	8.338

P/GeV

theta vs momentum: KMinus

theta/deg



theta vs momentum: Proton

theta/deg

