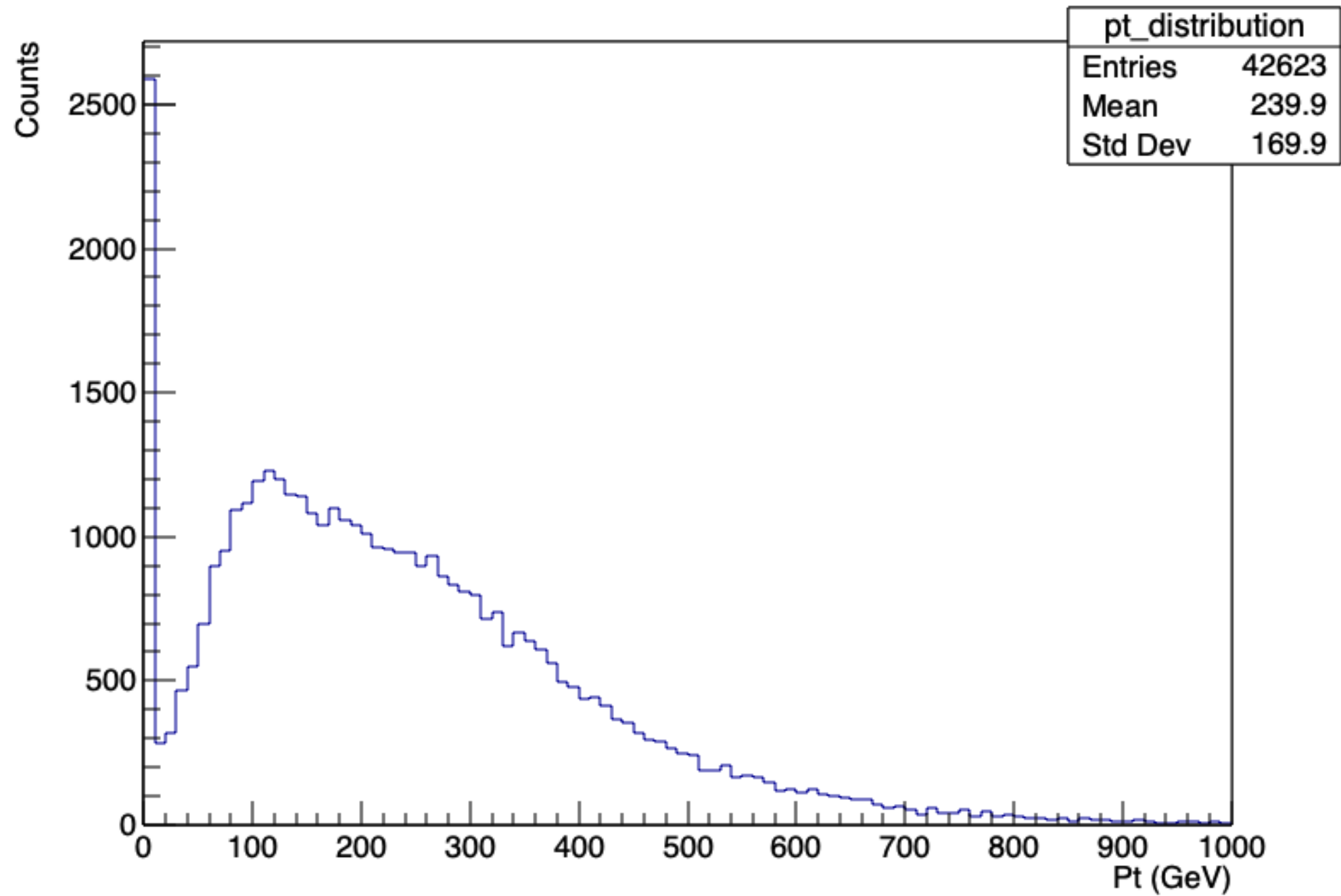


# Pt plots and decay chain

**All final status muons,  
“final” means they have status of 1**

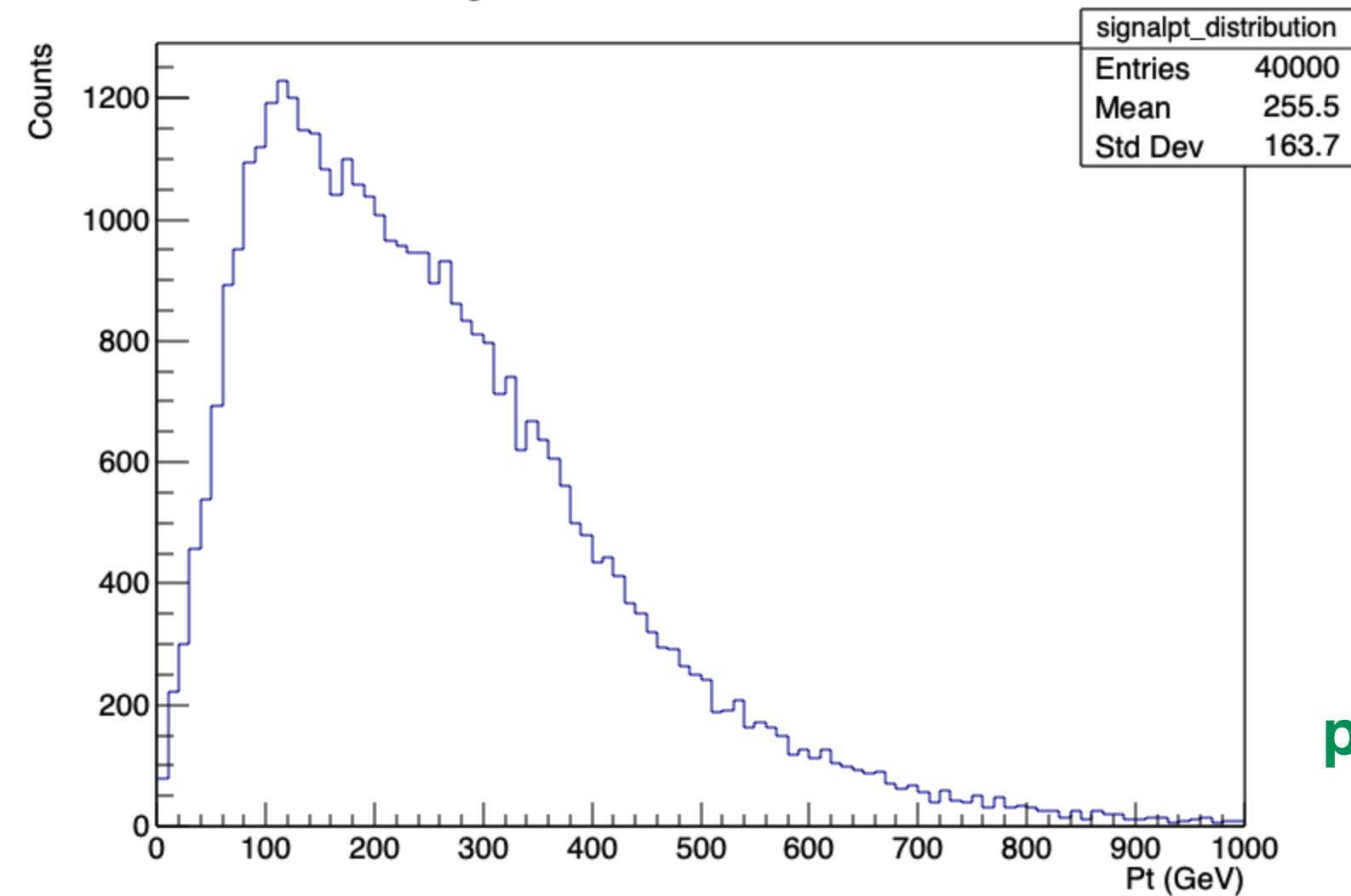
**Final Muons Pt Distribution**



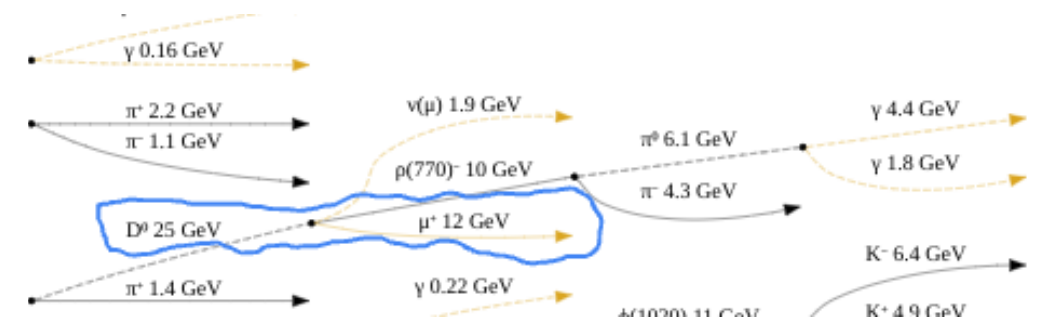
## Signal muons,

“signal” means they are “final” status  
and produced by a smuon decay

Signal Muons Pt Distribution



## An event with low pt final muon



**Produced by a meson**

**A single (anti) muon, not a pair**

**pt ~ 1 GeV, total energy ~12 GeV**

**Only 40000 entries**

**No peak at zero GeV**

# All unexpected particles come from photon interactions

Details here:

<https://tiny.utk.edu/decayprodcuts>

An event with photon, emitted by a muon coming from a muon decay, the photon itself pair-produce  $e^- e^+$

