

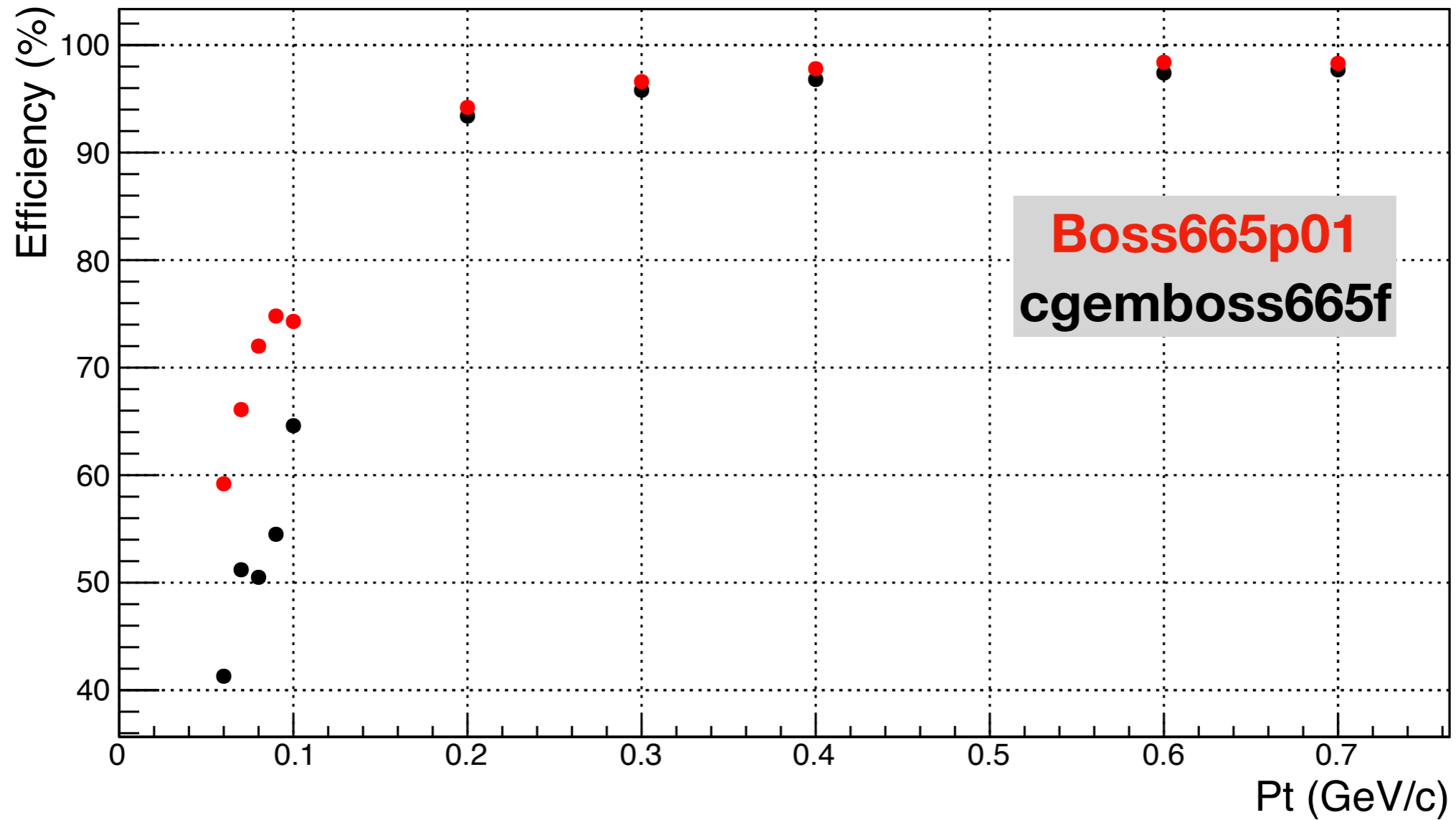
Test of global hough V15

- 20000 pions
- fixpt generator
- $pt=[0.06, 0.07, 0.08, 0.09, 0.1, 0.15, 0.2, 0.3, 0.4, 0.6, 0.7]$ GeV/c
- $|\cos(\theta)| < 0.93$
- HoughTransAlg-00-00-15

- comparison w.r.t. Boss665p01
- same cuts applied:

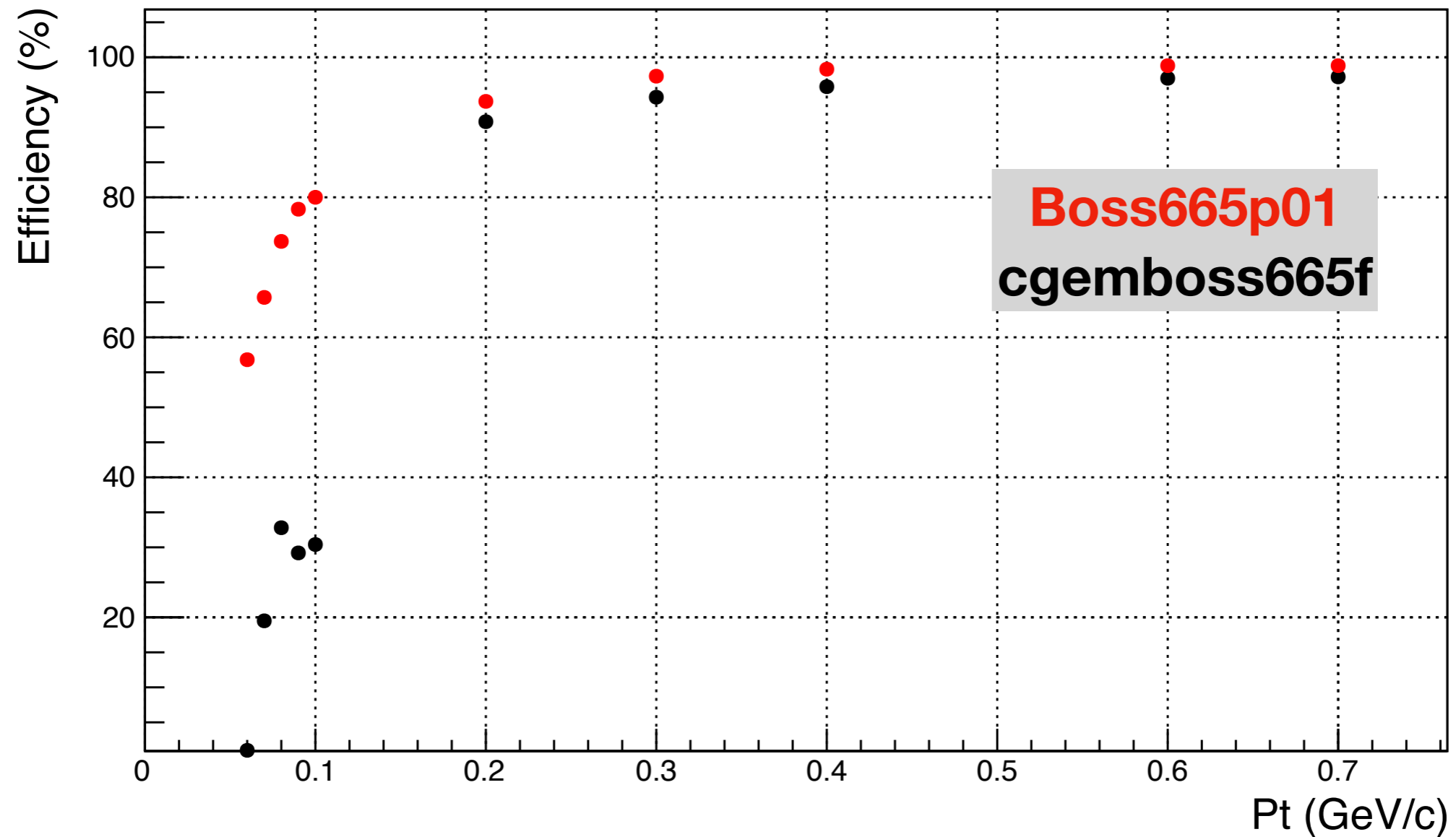
```
if(!(*itTrk)->isMdcTrackValid()) continue;  
if(fabs(Rvz0) >= 10.0) continue;  
if(fabs(Rvxy0) >= 1.0) continue;  
if(fabs(cos(thetaTrk)) >= 0.93) continue;
```

Efficiency comparison: hough V15 vs Boss665p01



$$\text{eff} = \frac{\text{\#evt (1 trk)}}{\text{\#evt gen}}$$

Efficiency comparison: after Kalman

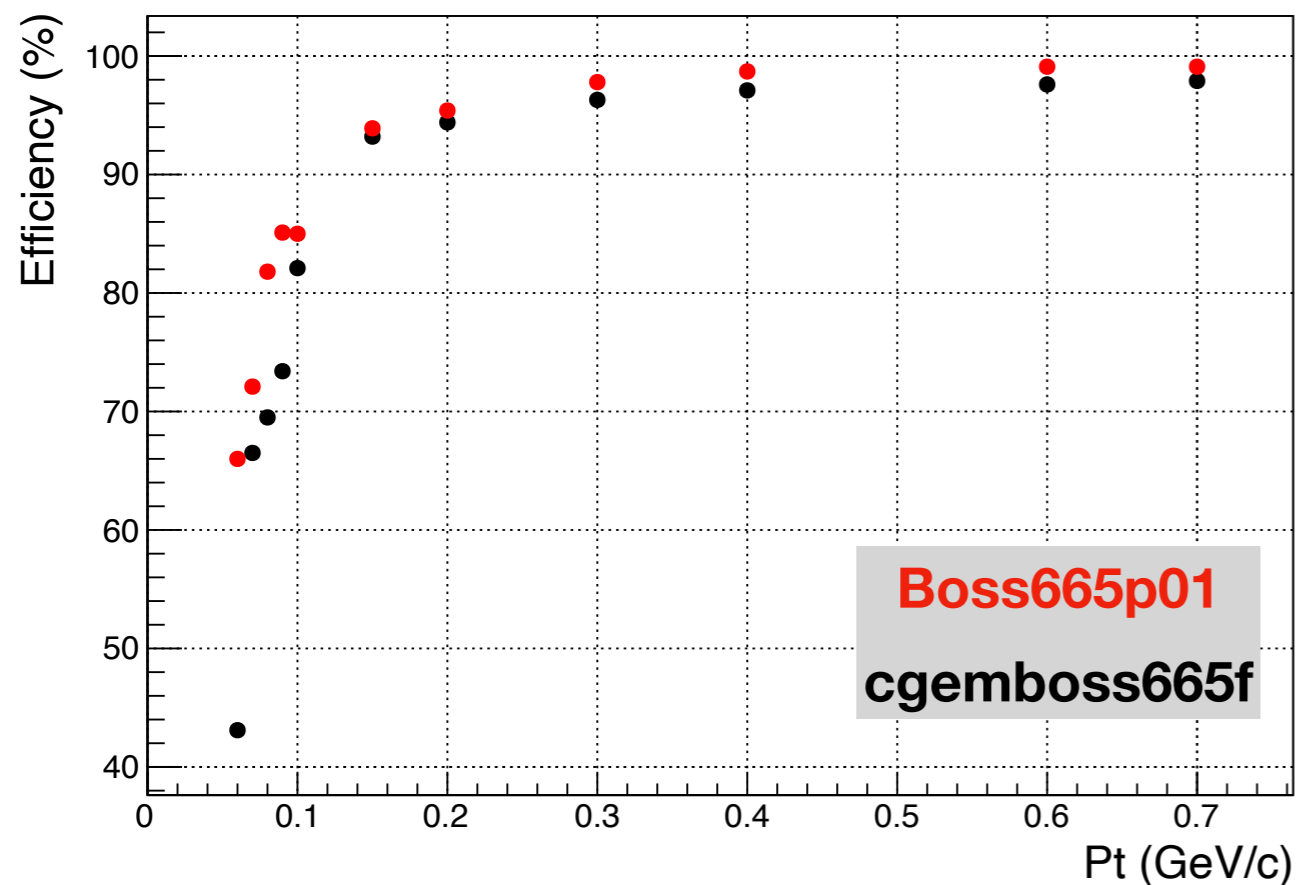


```
RecMdcKalTrack* mdcKalTrk = (*itTrk)->mdcKalTrack();  
RecMdcKalTrack::setPidType (RecMdcKalTrack::pion);  
if(!(*itTrk)->isMdcKalTrackValid()) continue;  
if((mdcKalTrk)->getStat(0, 2)!=0) continue;
```

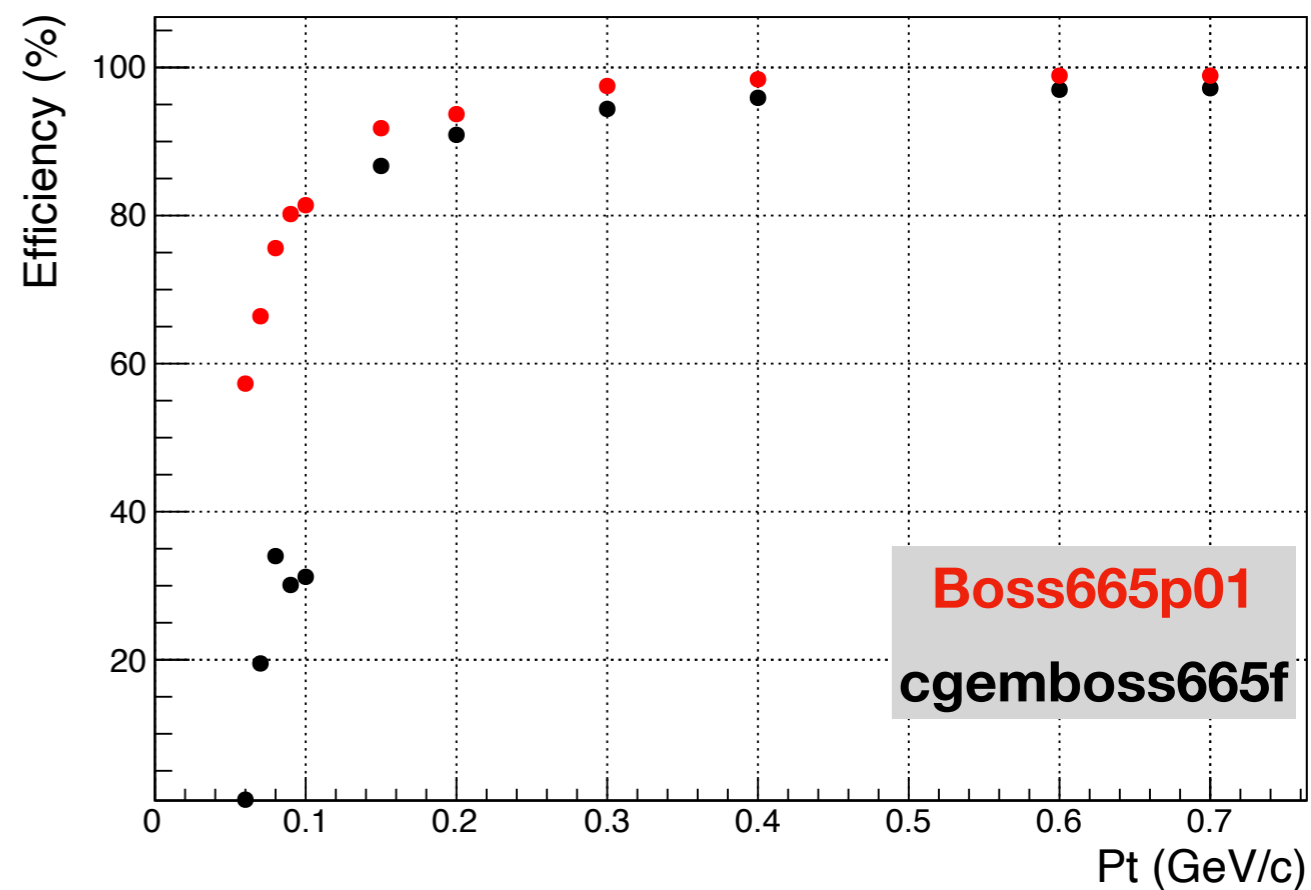
$$\text{eff} = \frac{\text{\#evt (1 KalTrk)}}{\text{\#evt gen}}$$

Efficiency comparison 2

Before Kalman

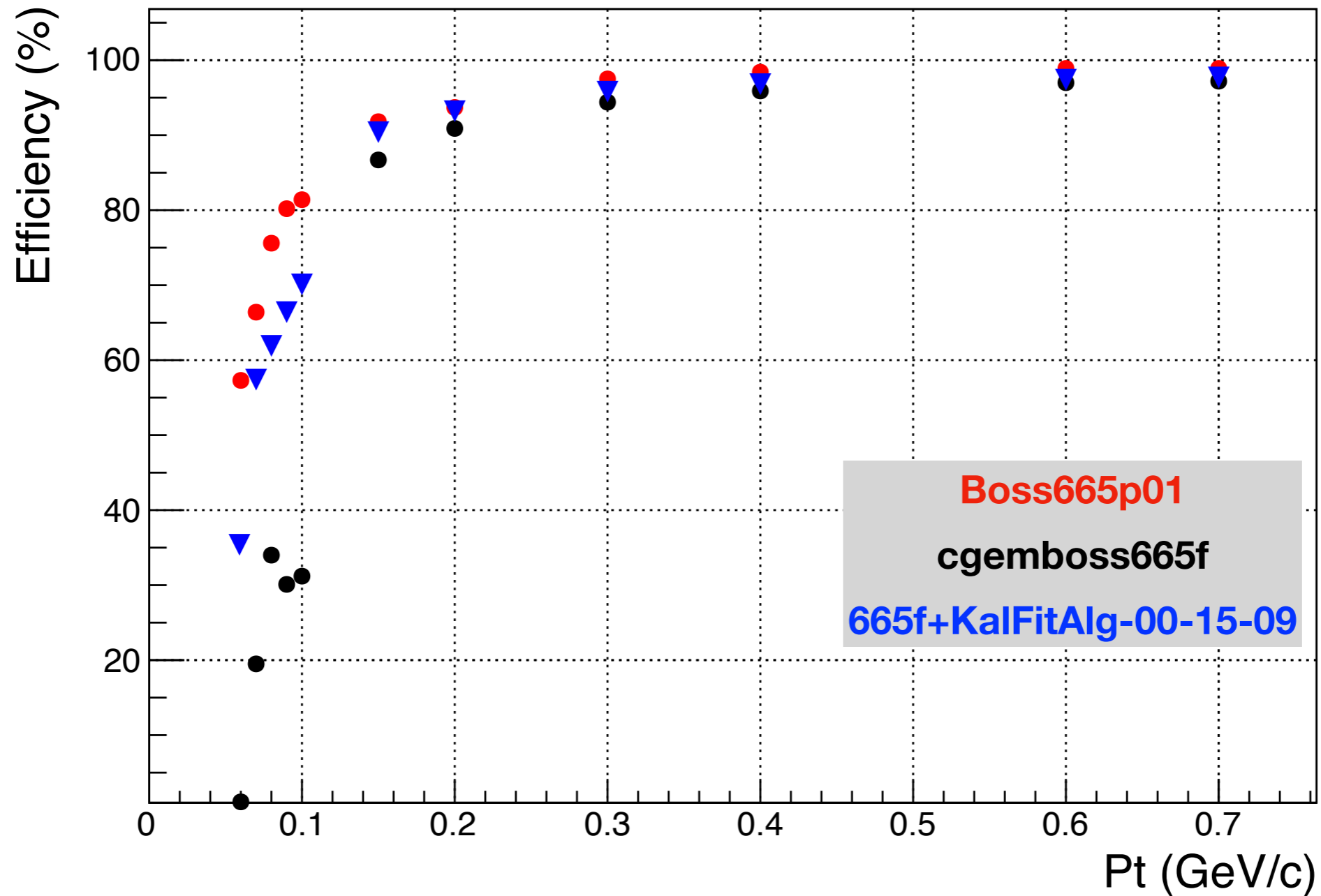


After Kalman



$$\text{eff} = \frac{\text{\#evt (1trk al least)}}{\text{\#evt gen}}$$

Efficiency comparison 3: KalFitAlg-00-15-09



$$\text{eff} = \frac{\text{\#evt (1trk al least)}}{\text{\#evt gen}}$$