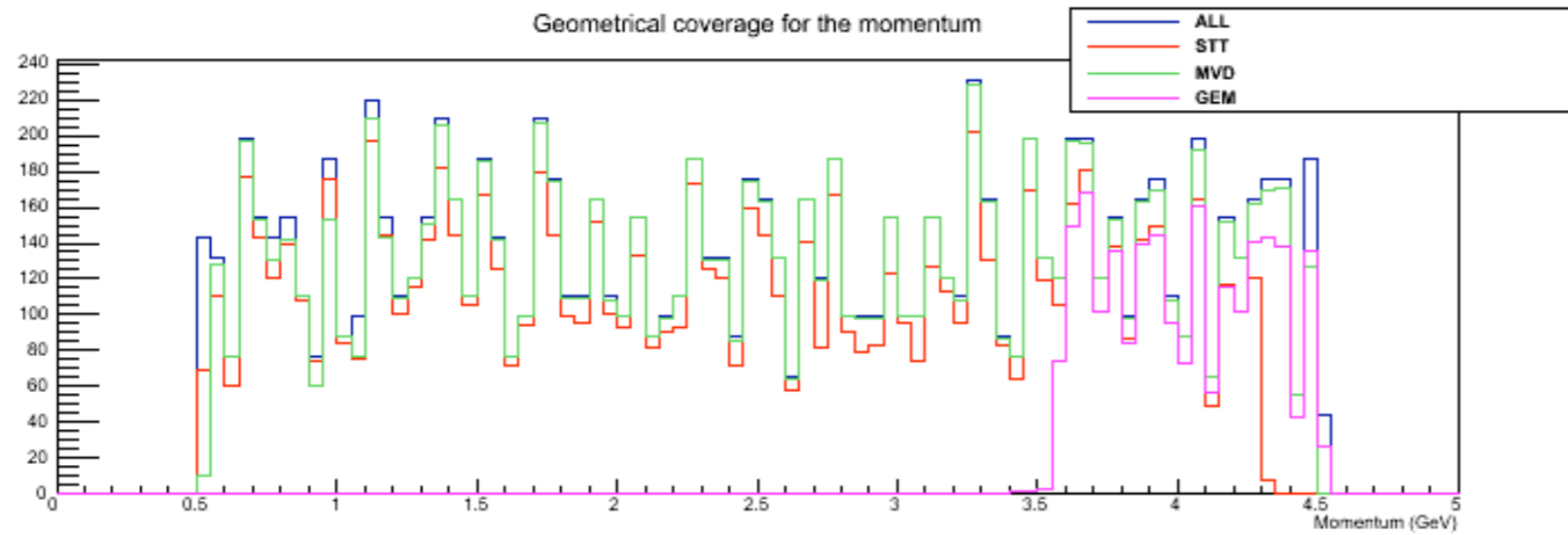


# 2-Pions analysis

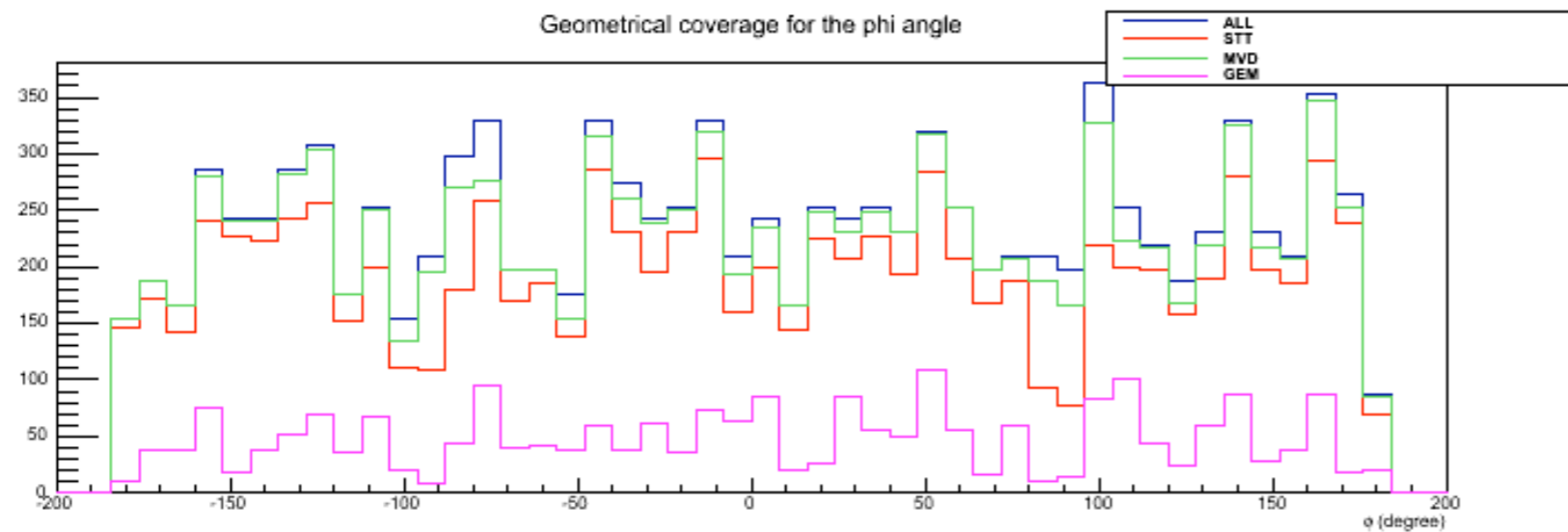
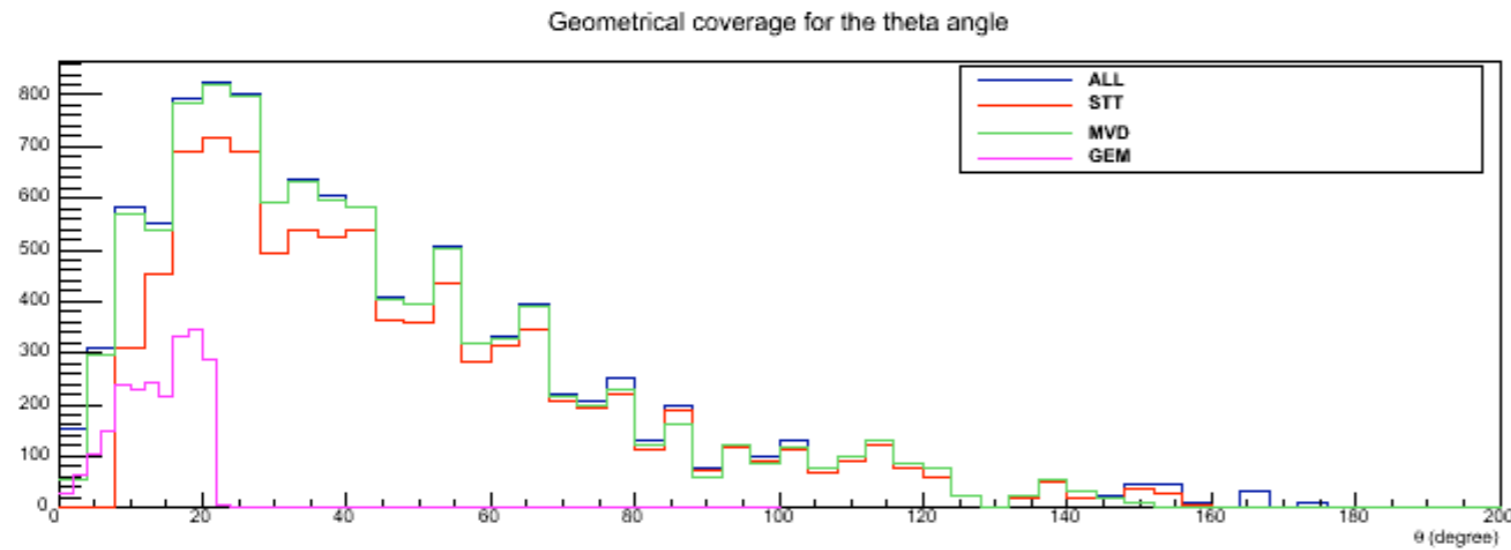
## Geometrical Acceptance Studies

Elisa Fioravanti - 21th July 2011

# 5500 STT events fully reconstructed (GRID)

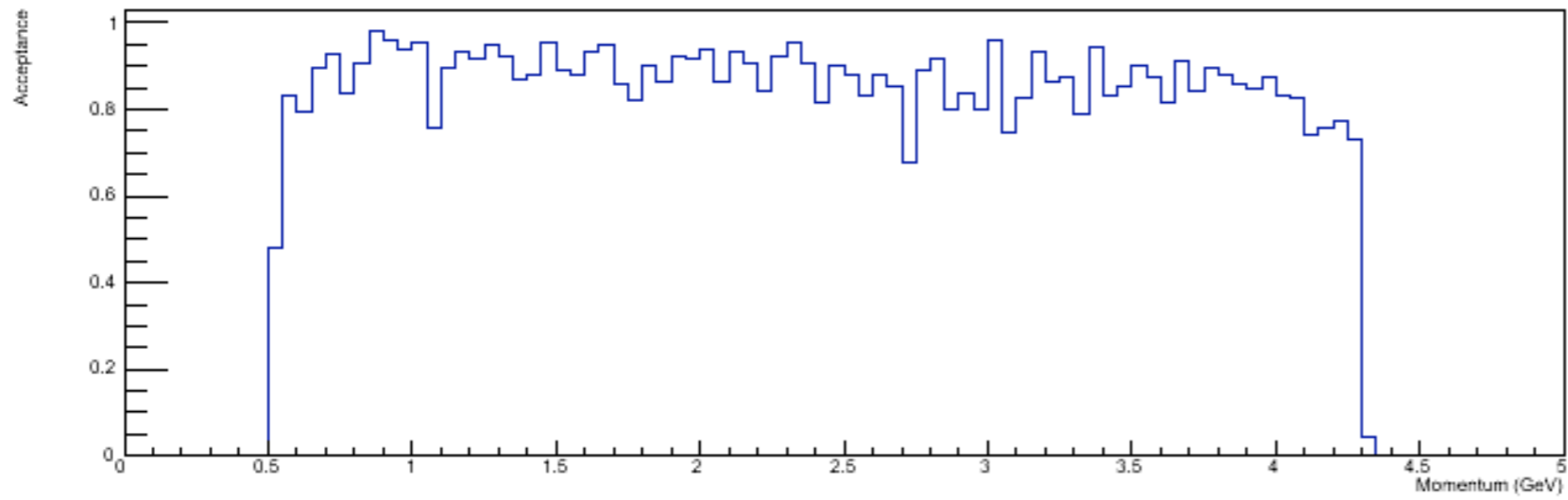


Geometrical coverage - at least one MC point in the detector



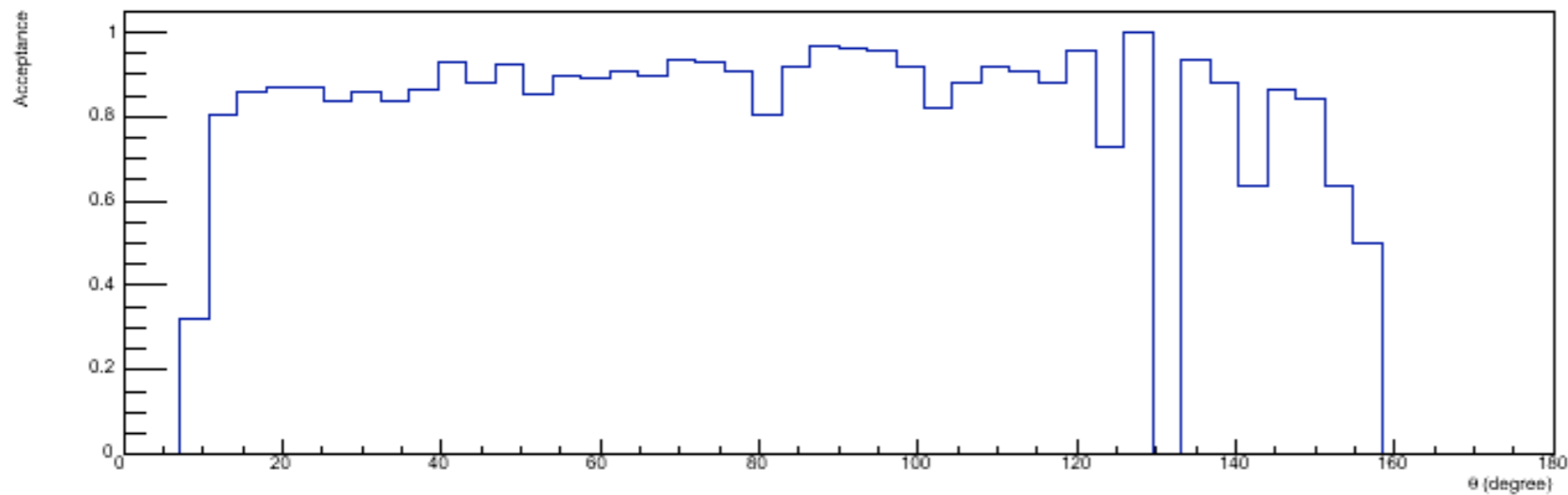
# 5500 STT events fully reconstructed (GRID)

Geometrical Acceptance



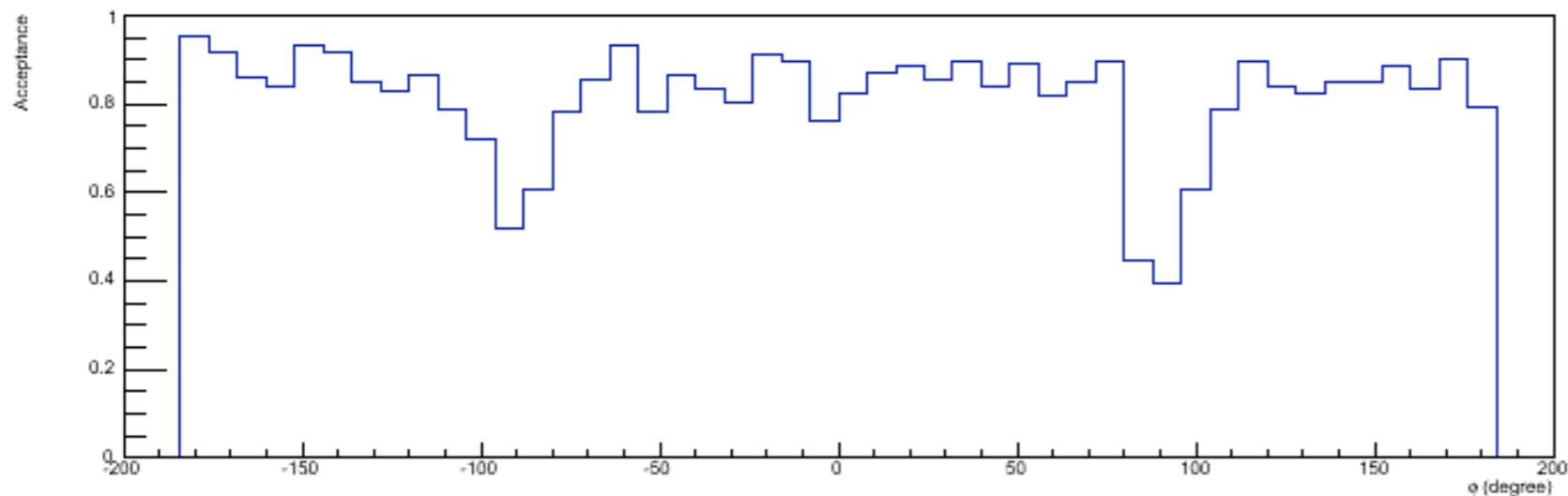
Geometrical coverage - at least one MC point in the detector

Geometrical Acceptance



Geometrical acceptance only STT

Geometrical Acceptance

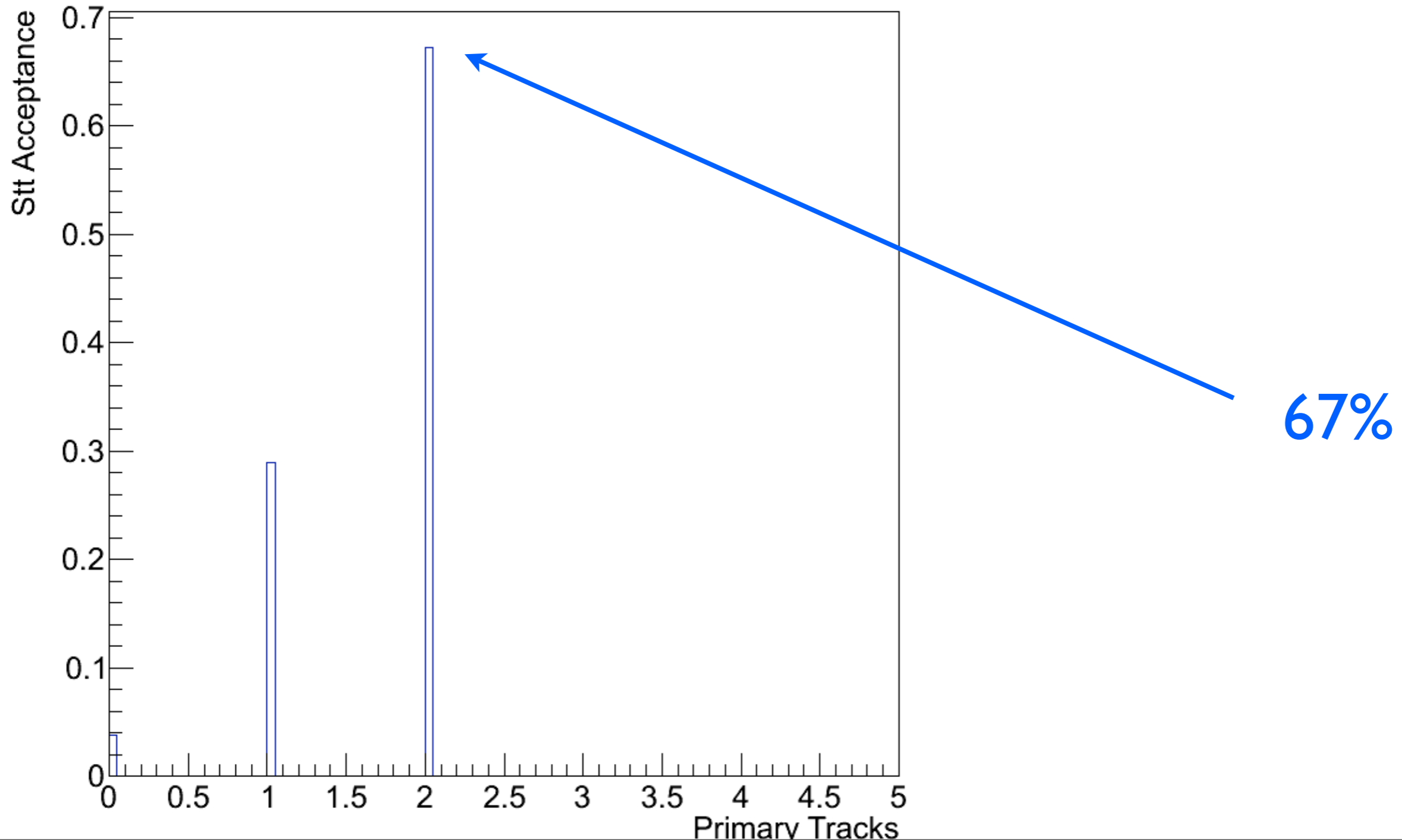


# 5500 STT events fully reconstructed (GRID)

Geometrical coverage - at least one MC point in the detector

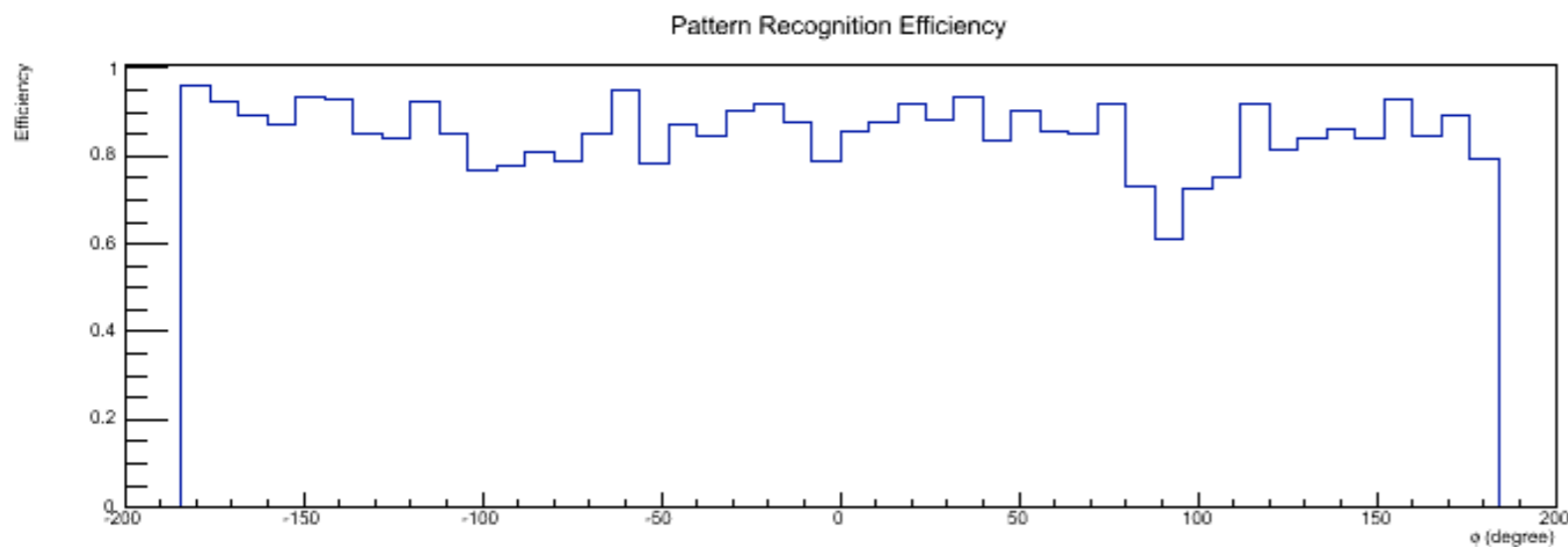
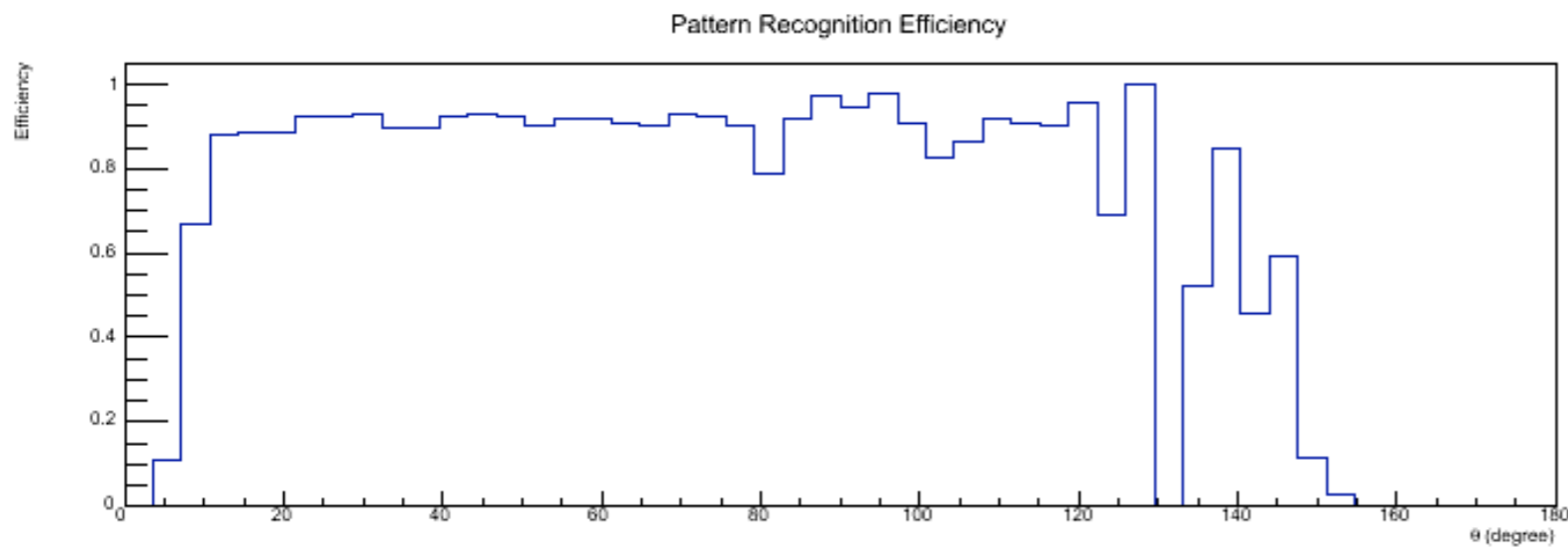
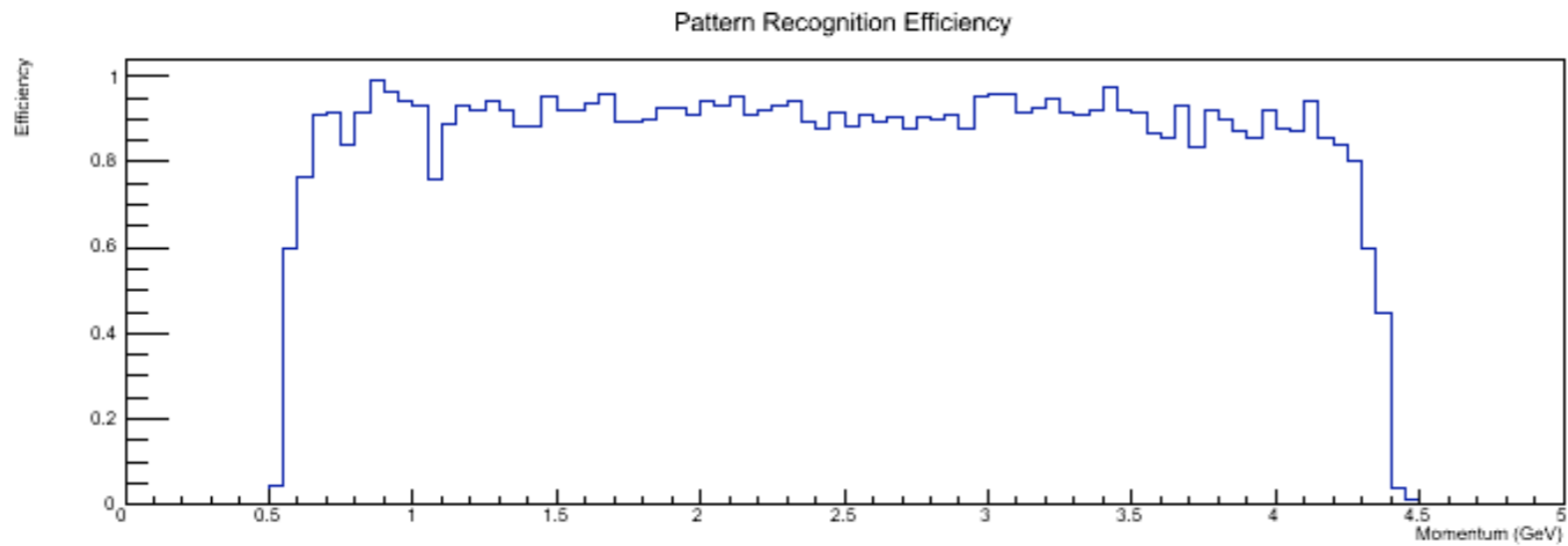
Global Acceptance - how many primary particles in **STT**?

Global Acceptance



# 5500 STT events fully reconstructed (GRID)

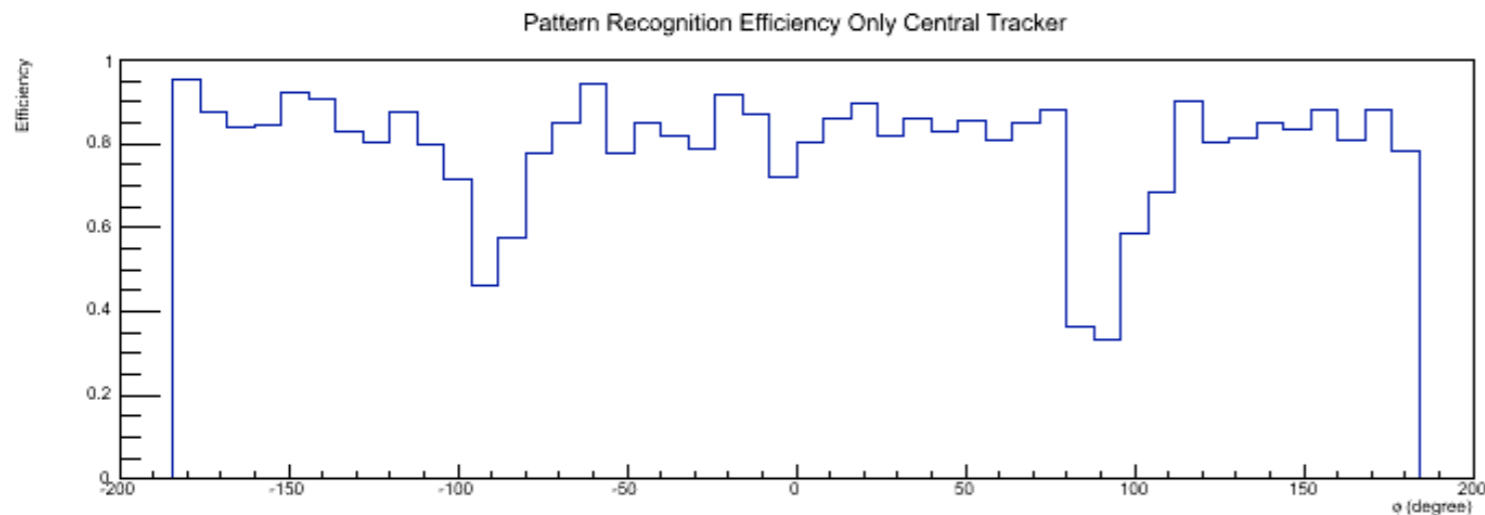
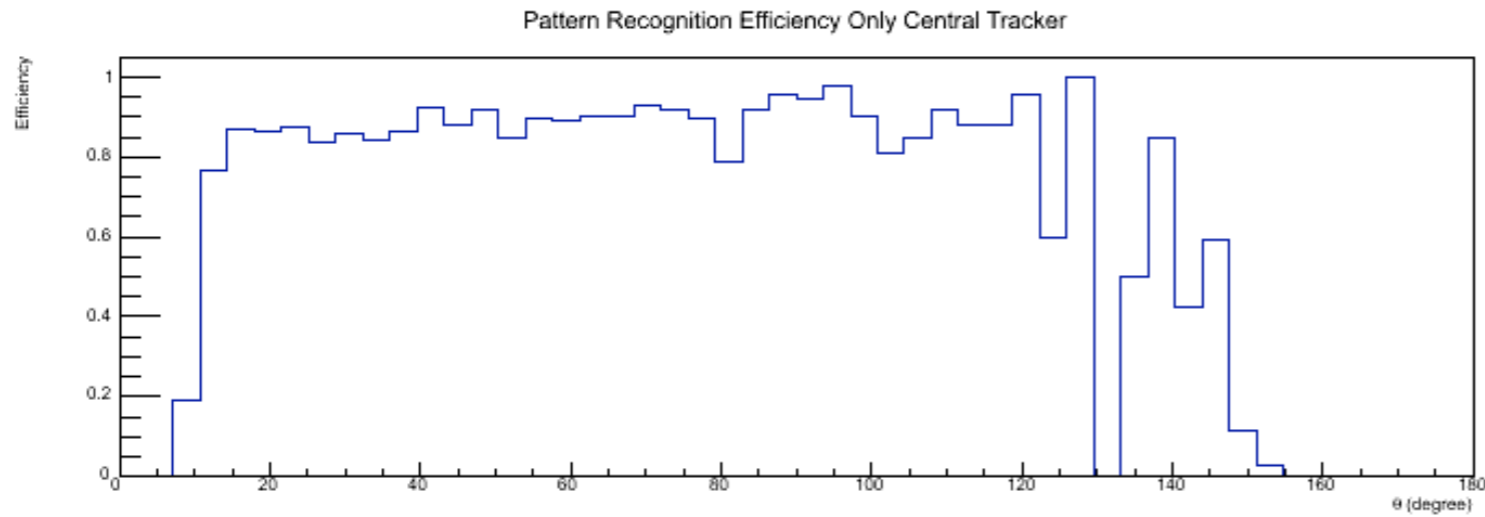
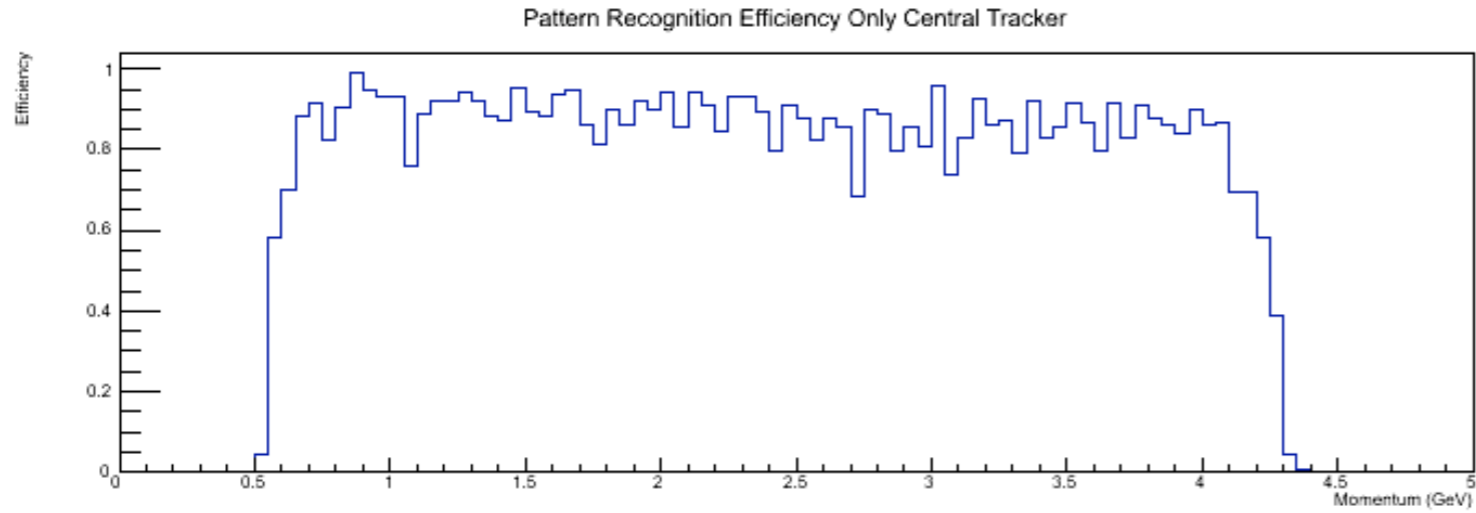
## Pattern recognition efficiency



Reconstruction  
efficiency  
STT+MVD+GEM

# 5500 STT events fully reconstructed (GRID)

## Pattern recognition efficiency

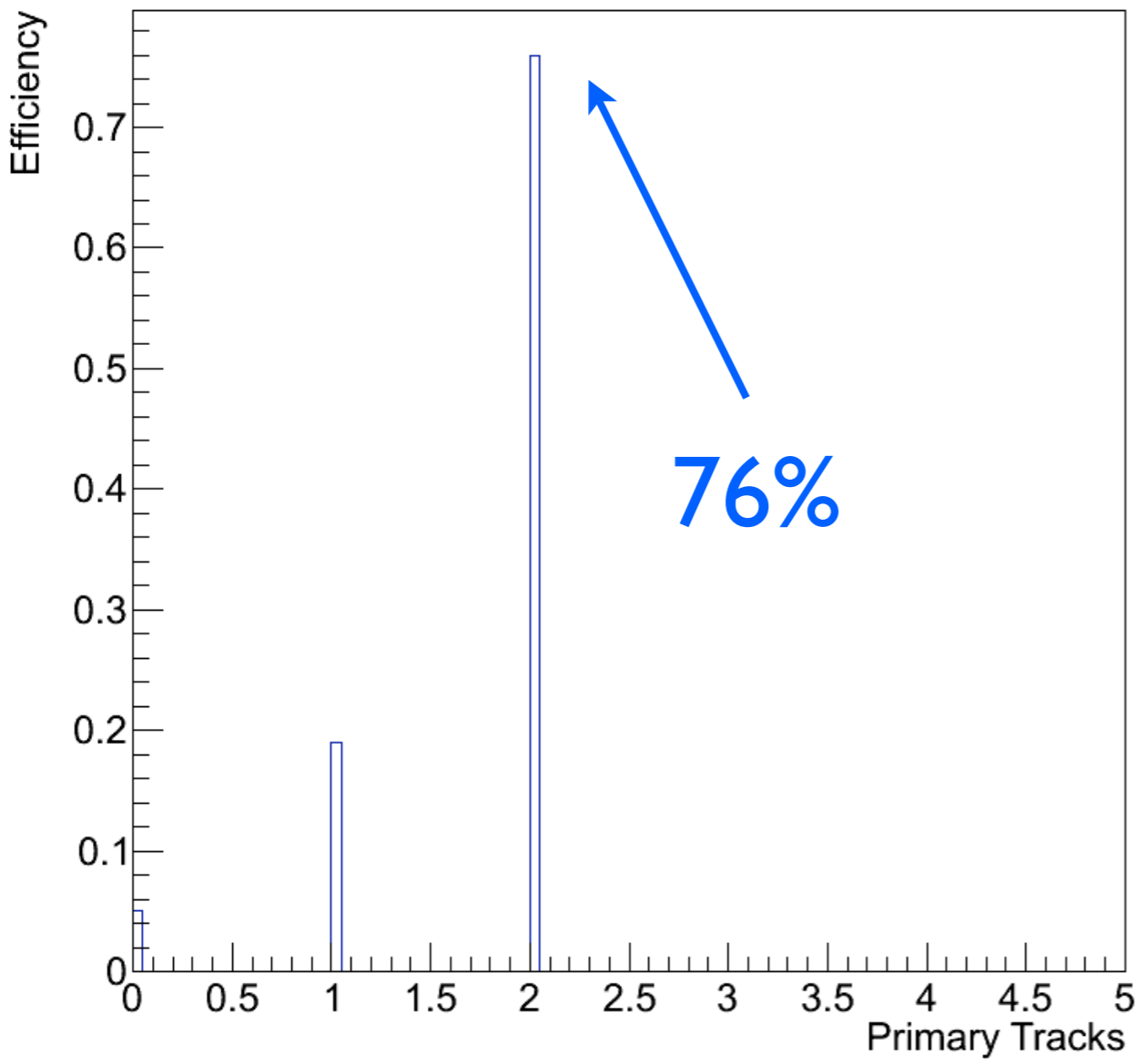


Reconstruction  
efficiency  
Only STT

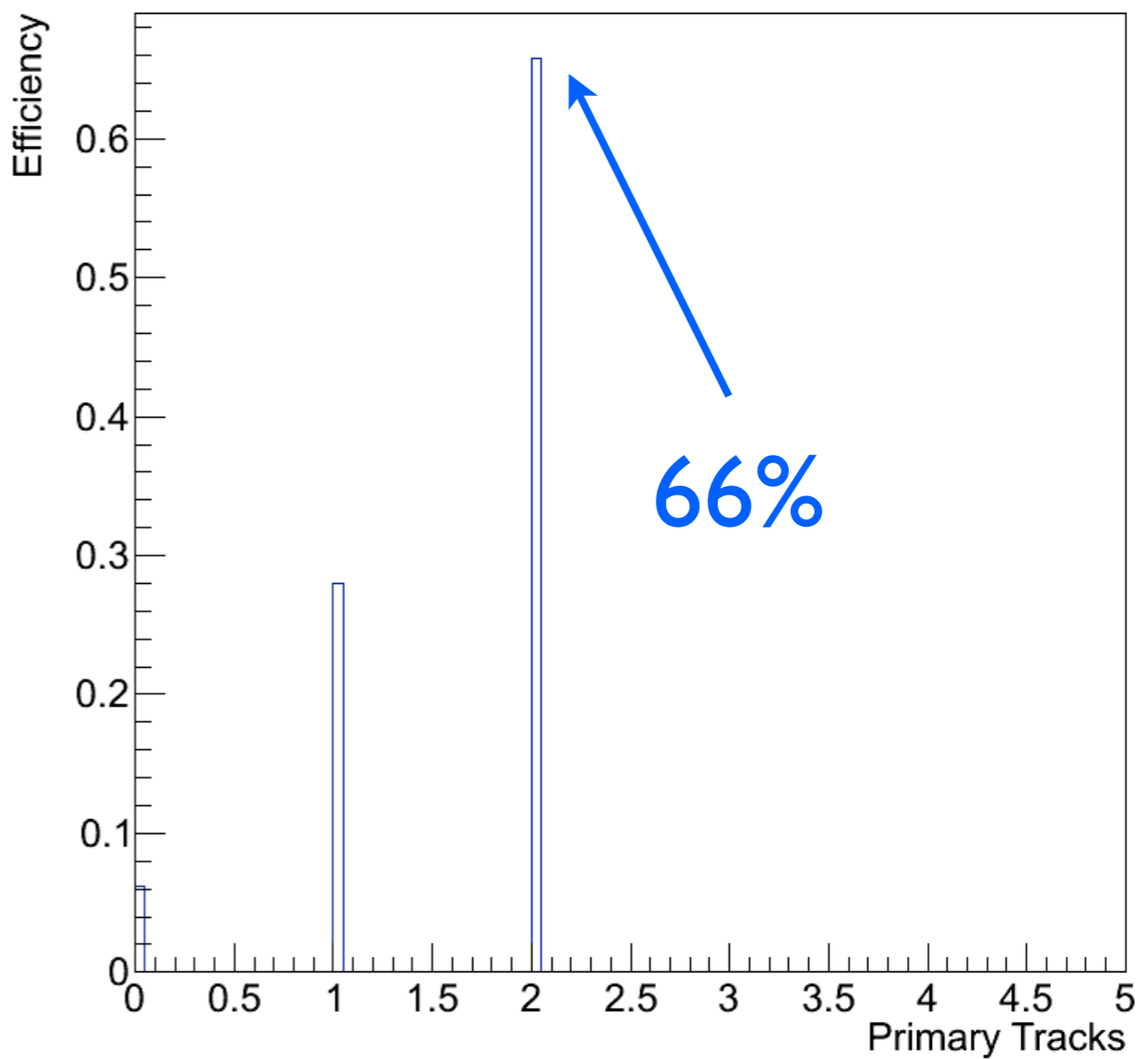
# 5500 STT events fully reconstructed (GRID)

## Global Pattern recognition efficiency

Number of reconstructed primary tracks STT+MVD+GEM

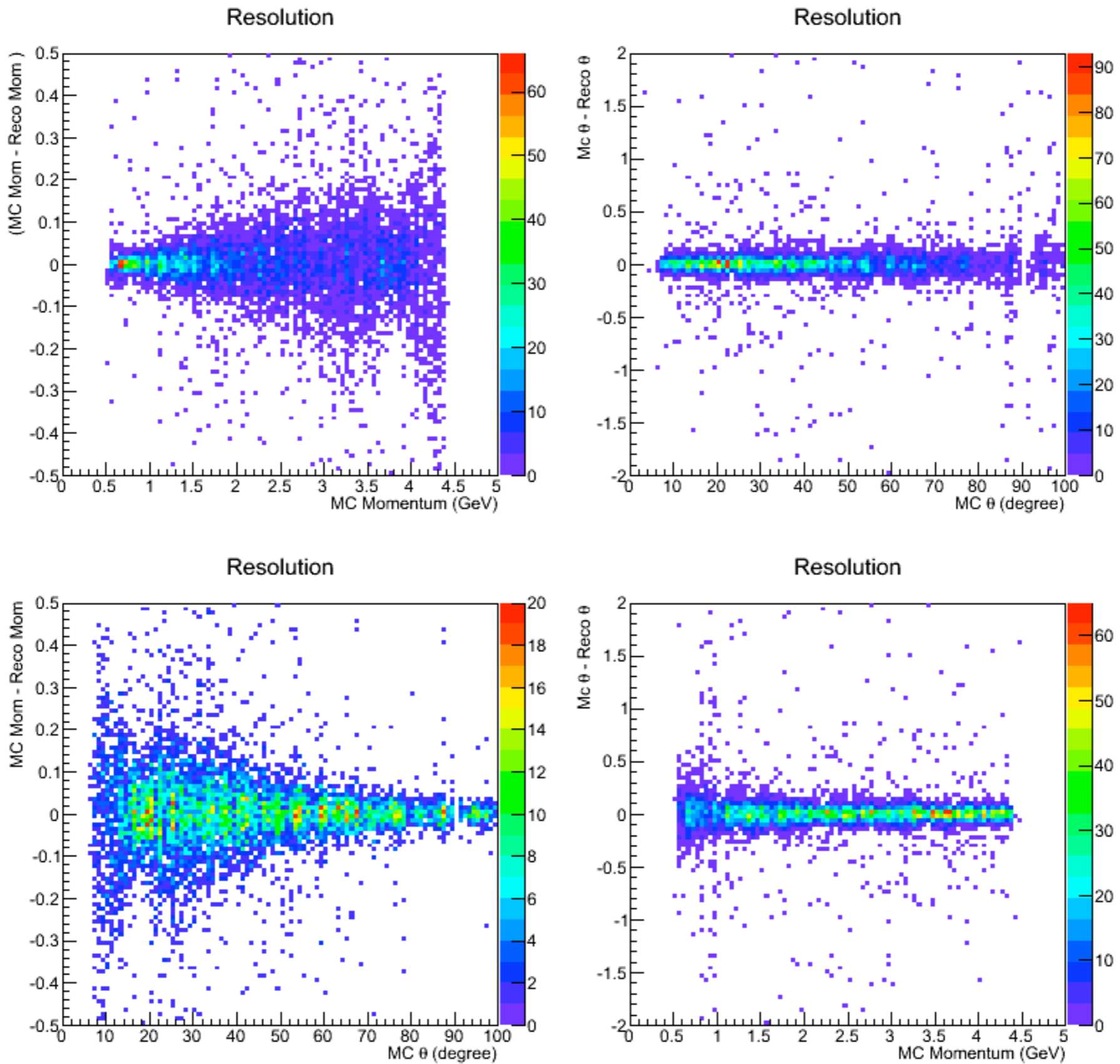


Number of reconstructed primary tracks Only Central Tracker



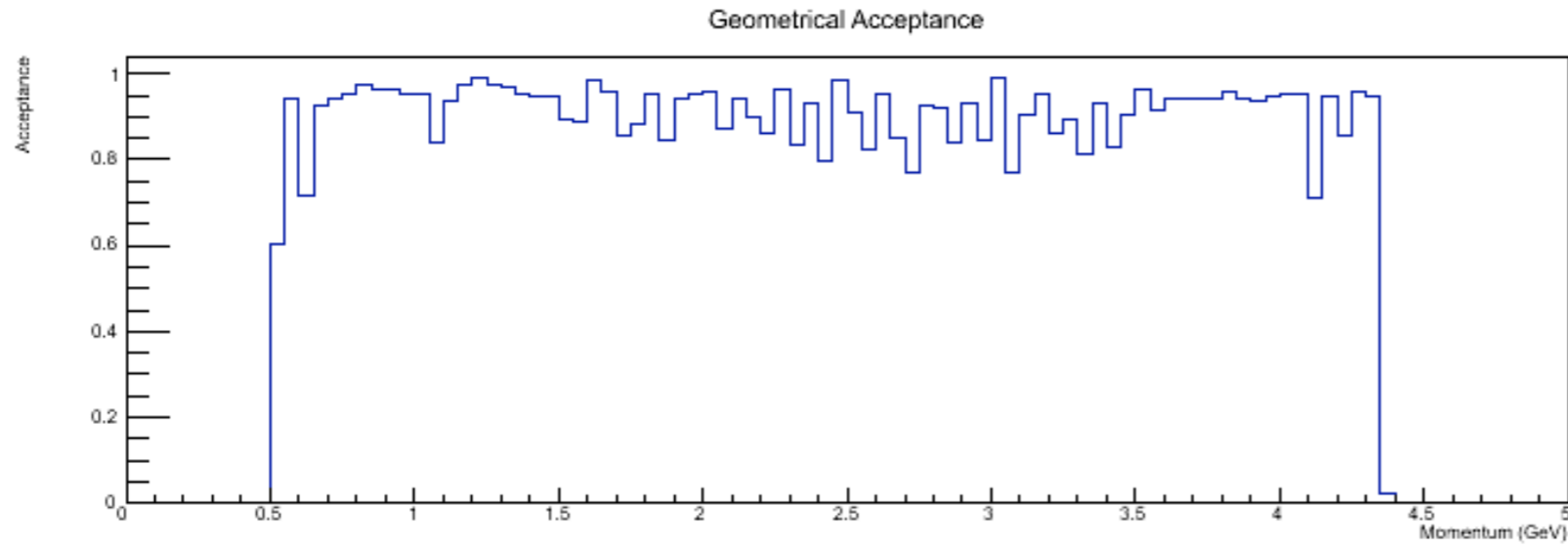
# 5500 STT events fully reconstructed (GRID)

## Resolution

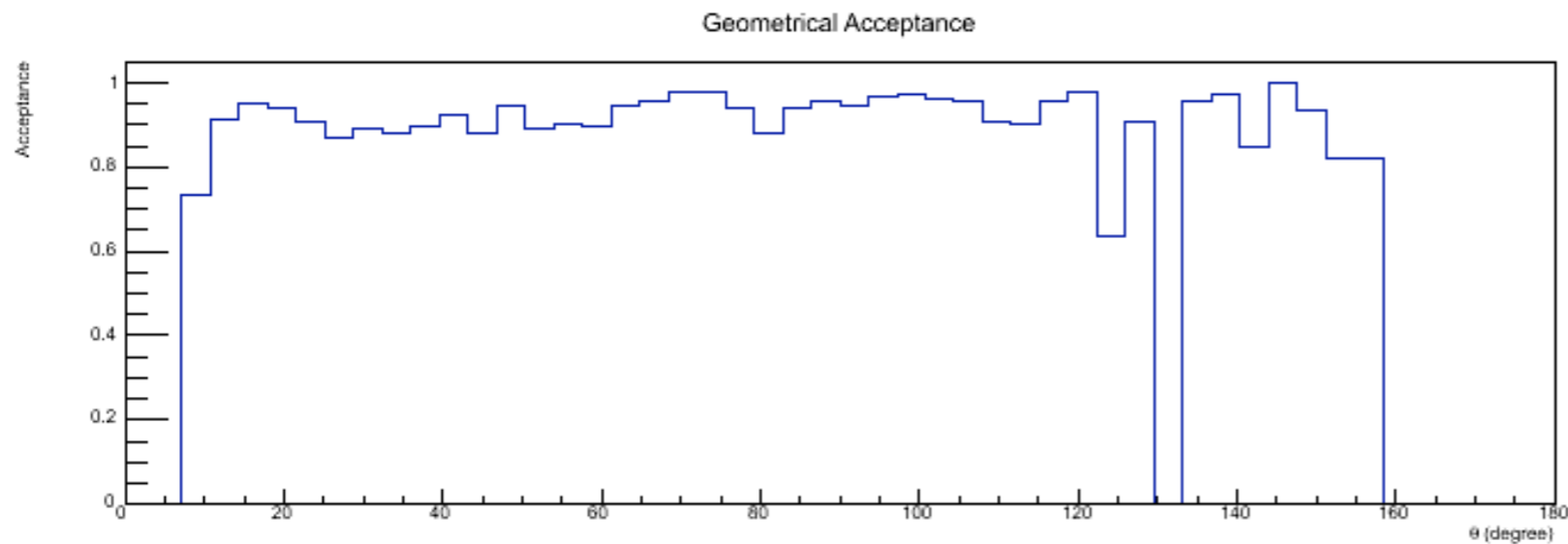




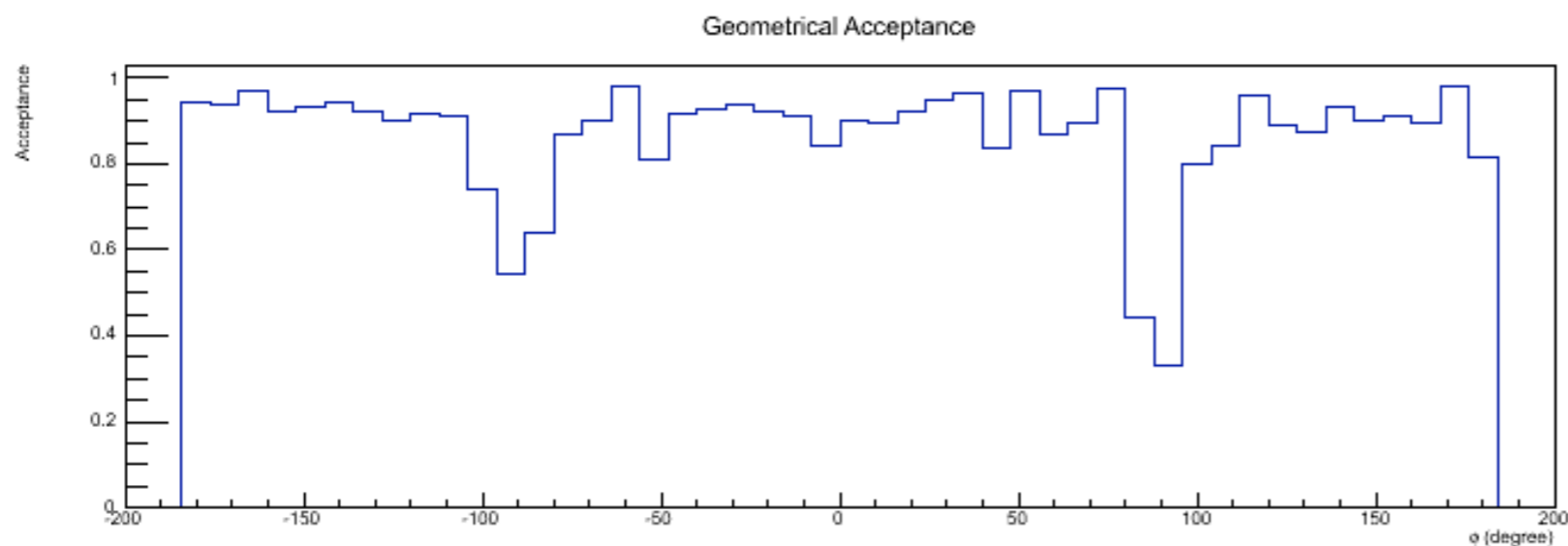
# 5500 TPC events fully reconstructed (GRID)



Geometrical coverage - at least one MC point in the detector

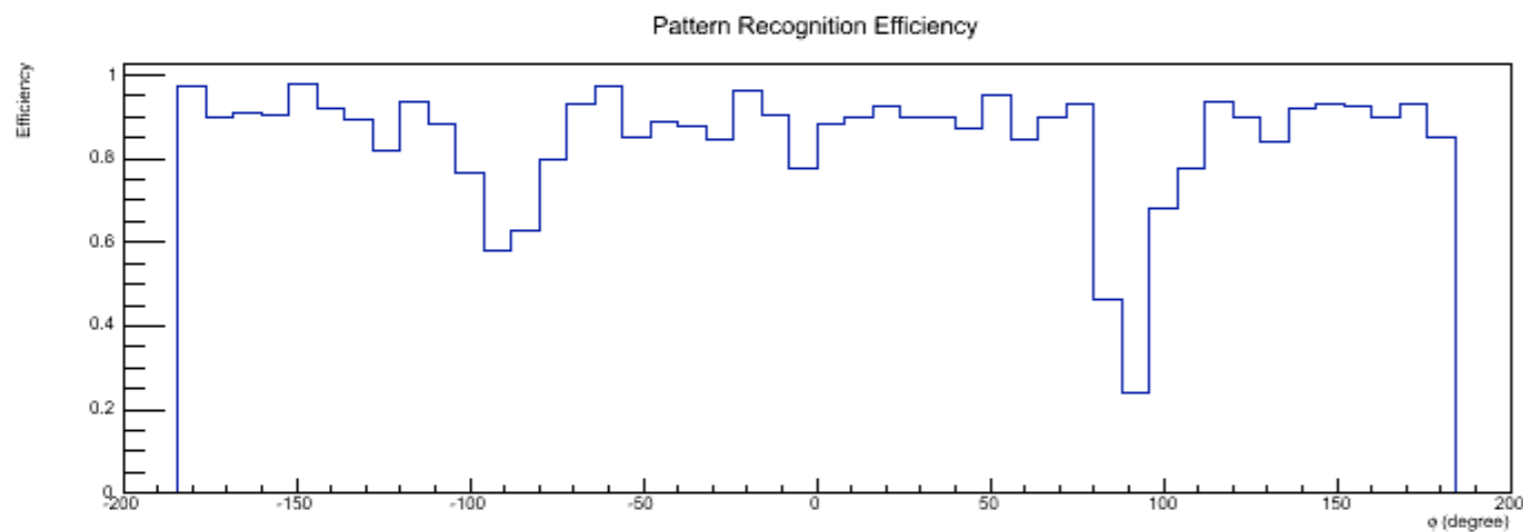
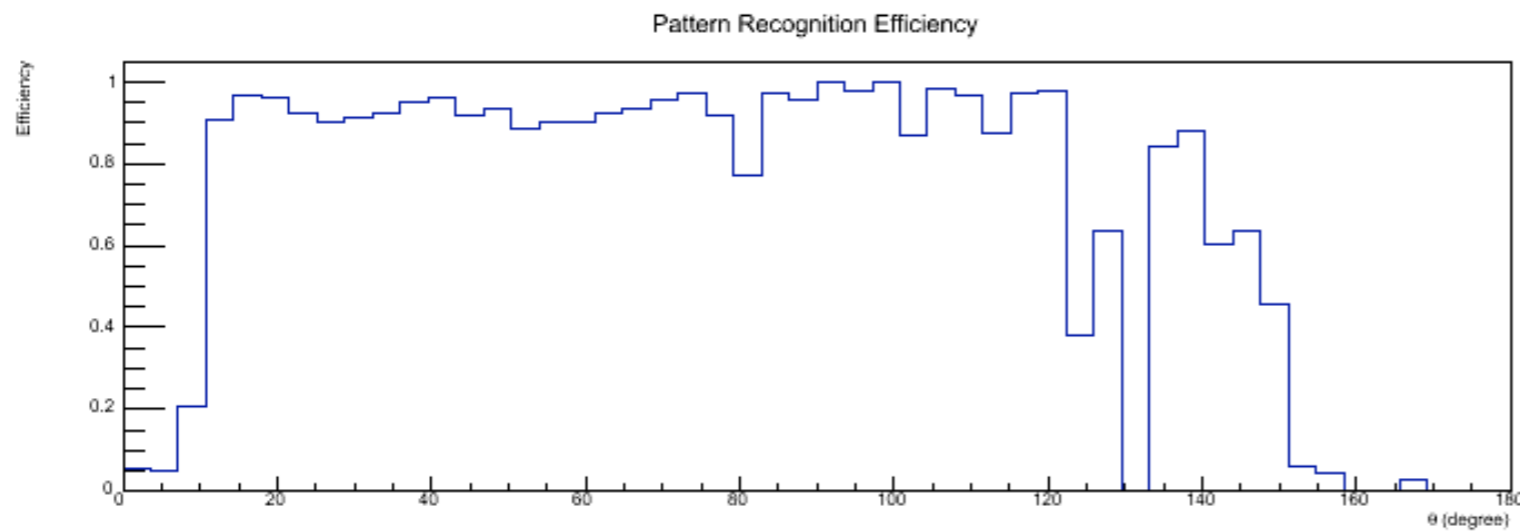
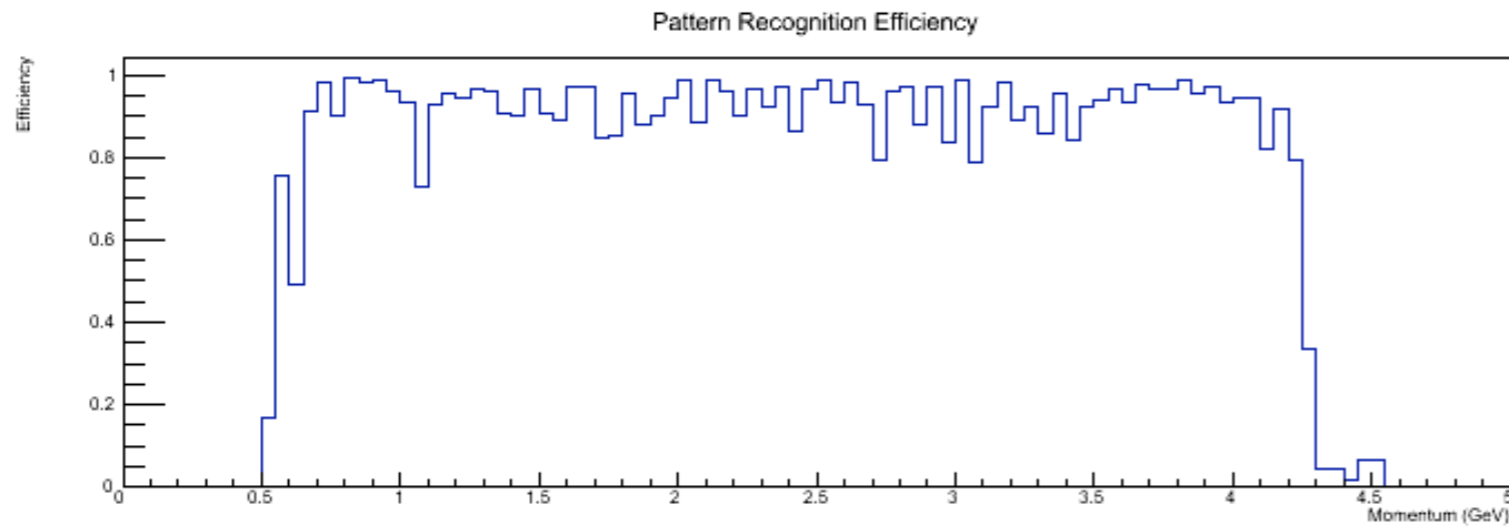


Geometrical acceptance only TPC



# 5500 TPC events fully reconstructed (GRID)

## Pattern recognition efficiency



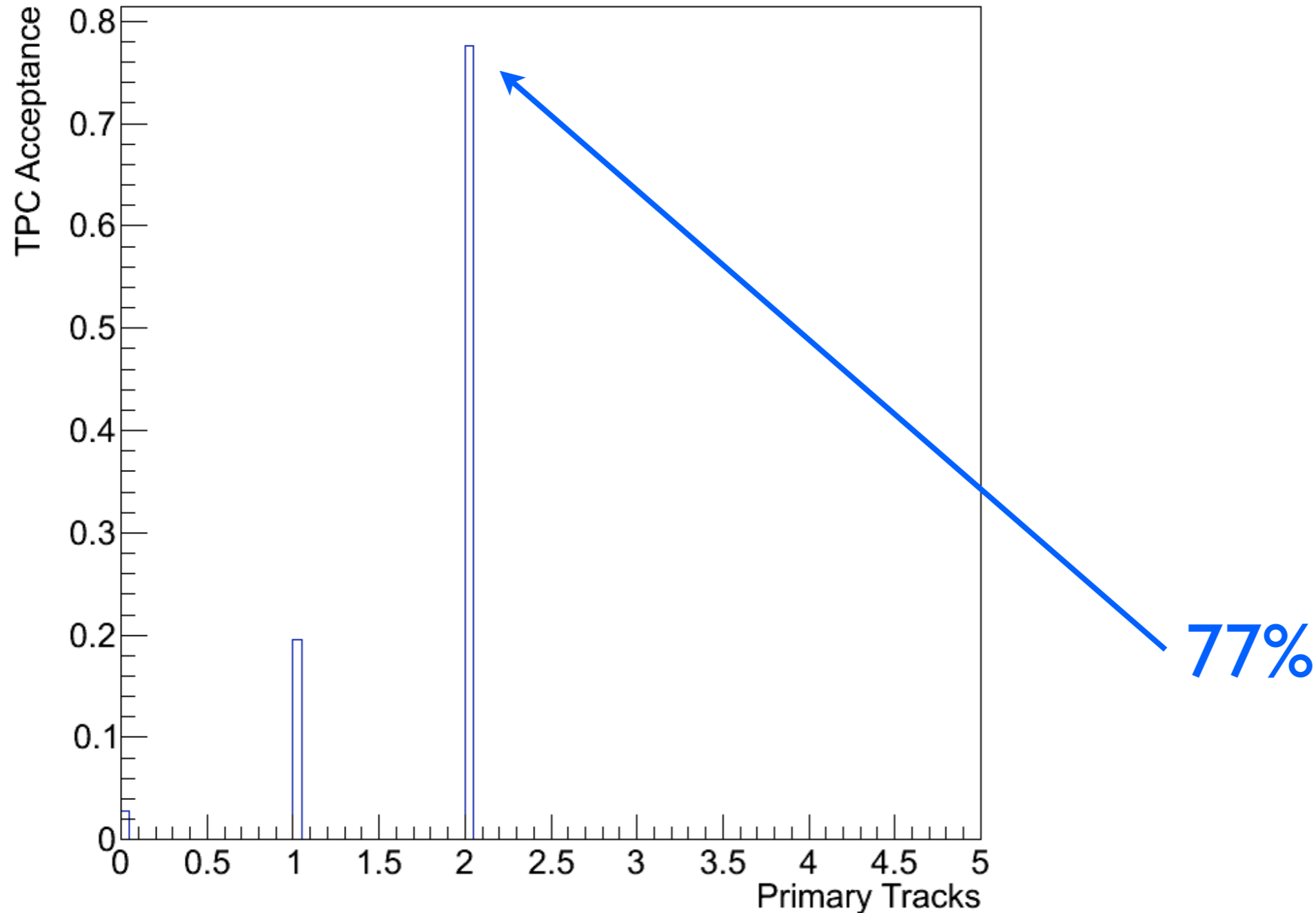
Reconstruction  
efficiency

# 5500 TPC events fully reconstructed (GRID)

Geometrical coverage - at least one MC point in the detector

Global Acceptance - how many primary particles in TPC?

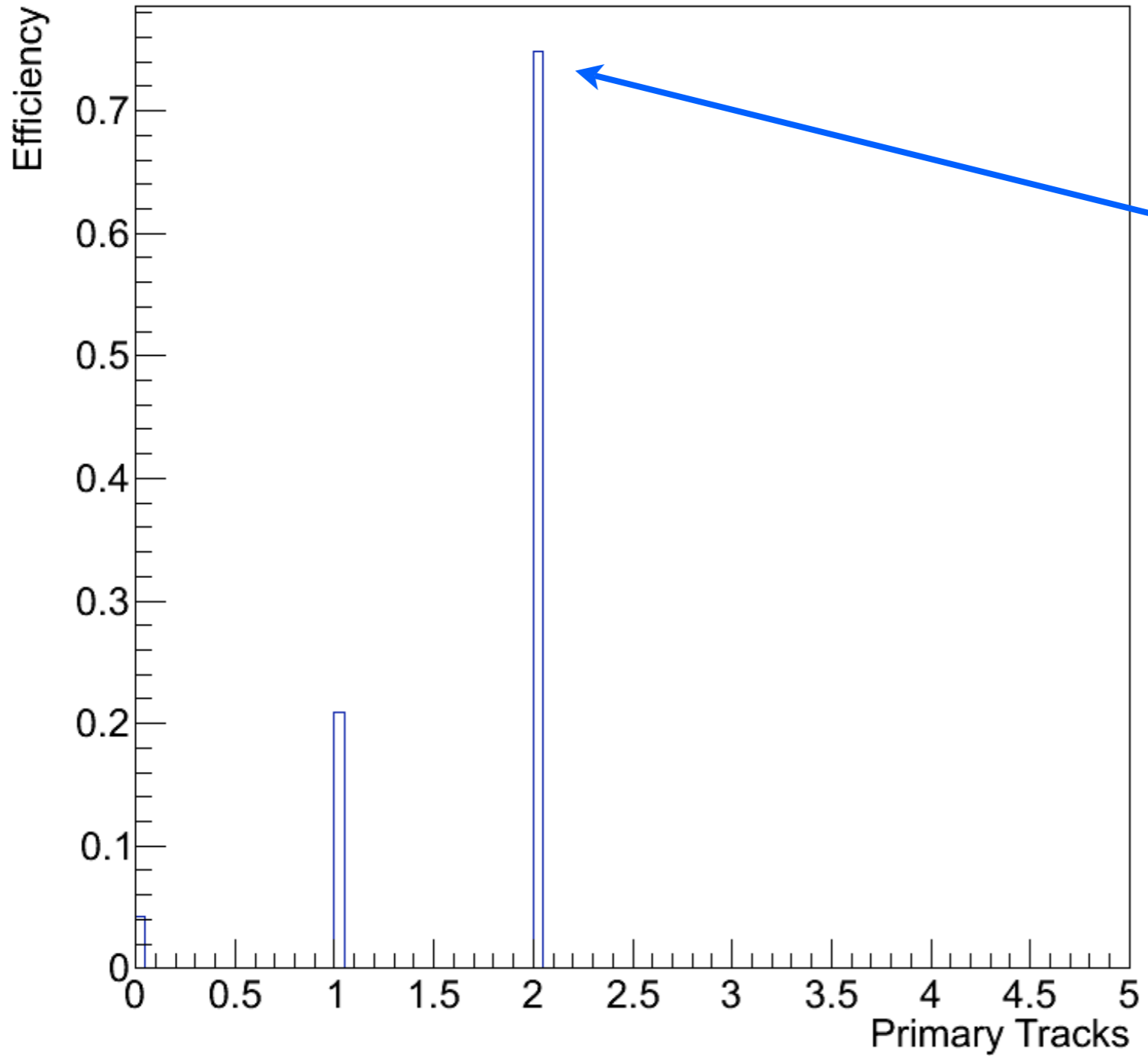
Global Acceptance



# 5500 TPC events fully reconstructed (GRID)

## Global Pattern recognition efficiency

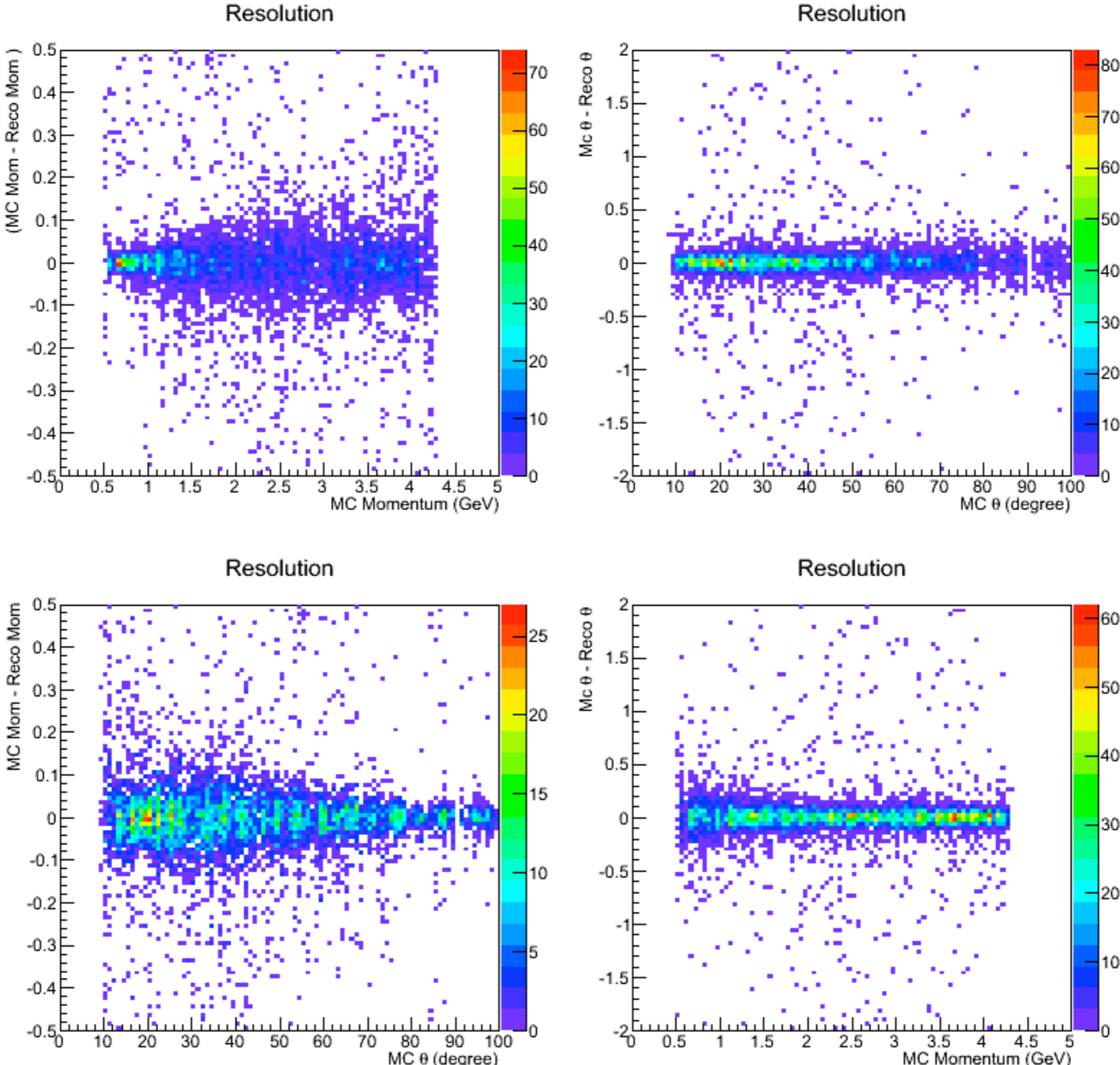
Number of reconstructed primary tracks



75%

# 5500 TPC events fully reconstructed (GRID)

## Resolution

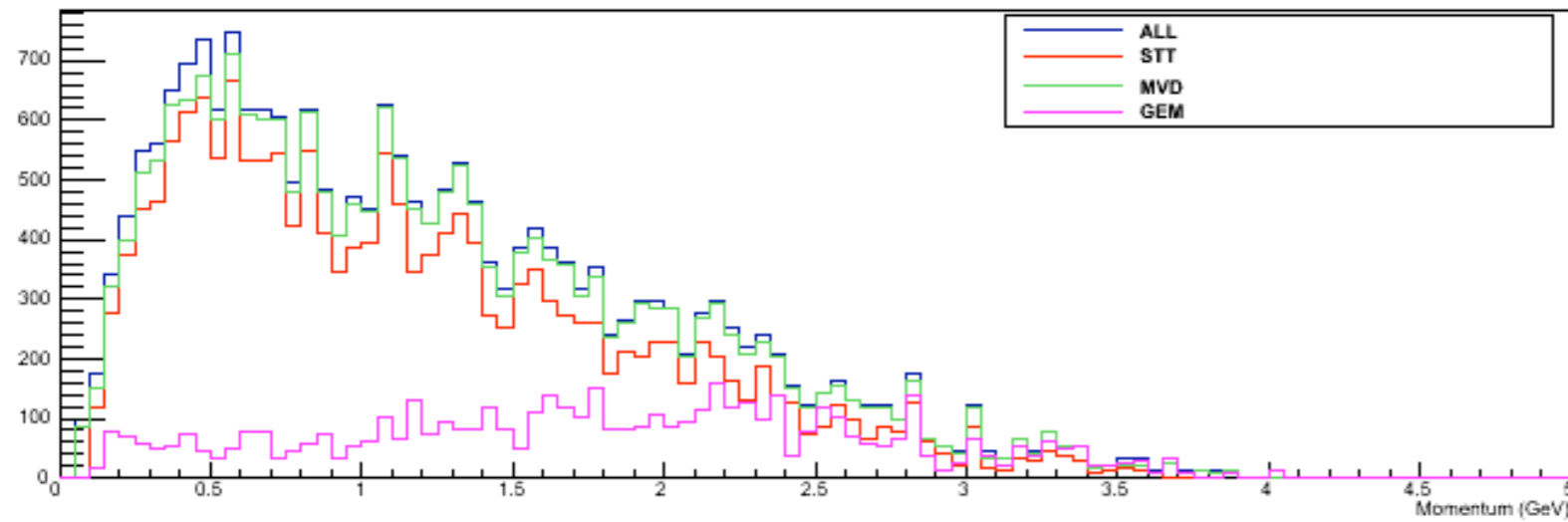


# 4-Pions analysis

## Geometrical Acceptance Studies

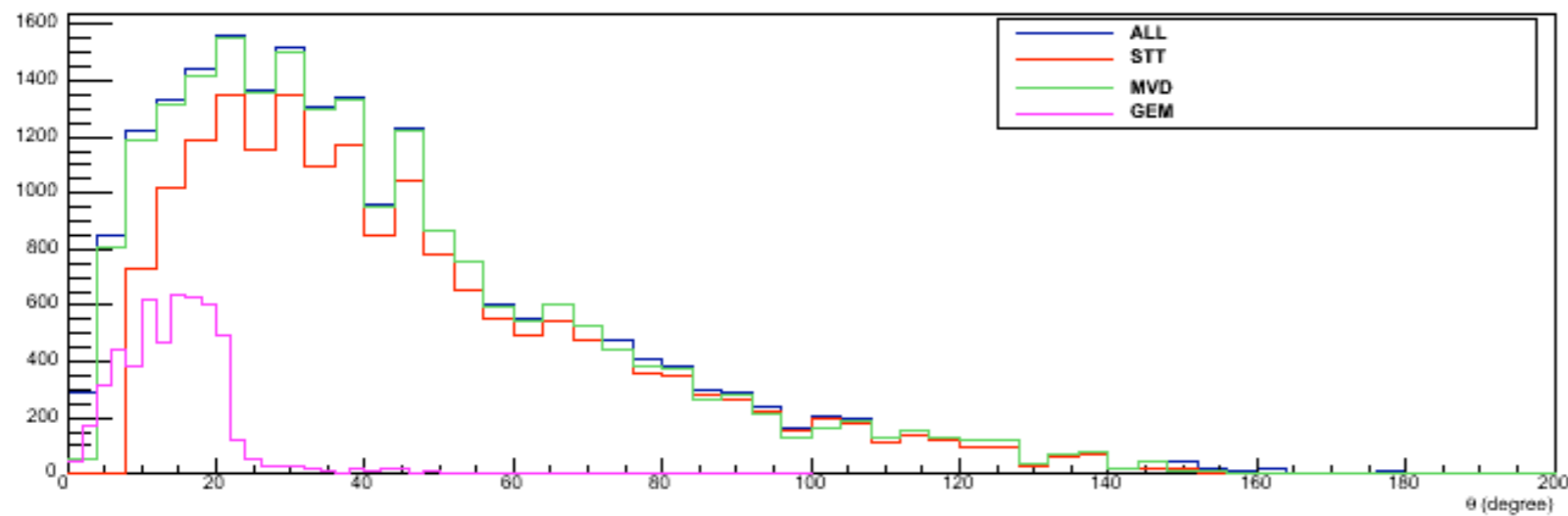
# 5500 STT events fully reconstructed (GRID)

Geometrical coverage for the momentum

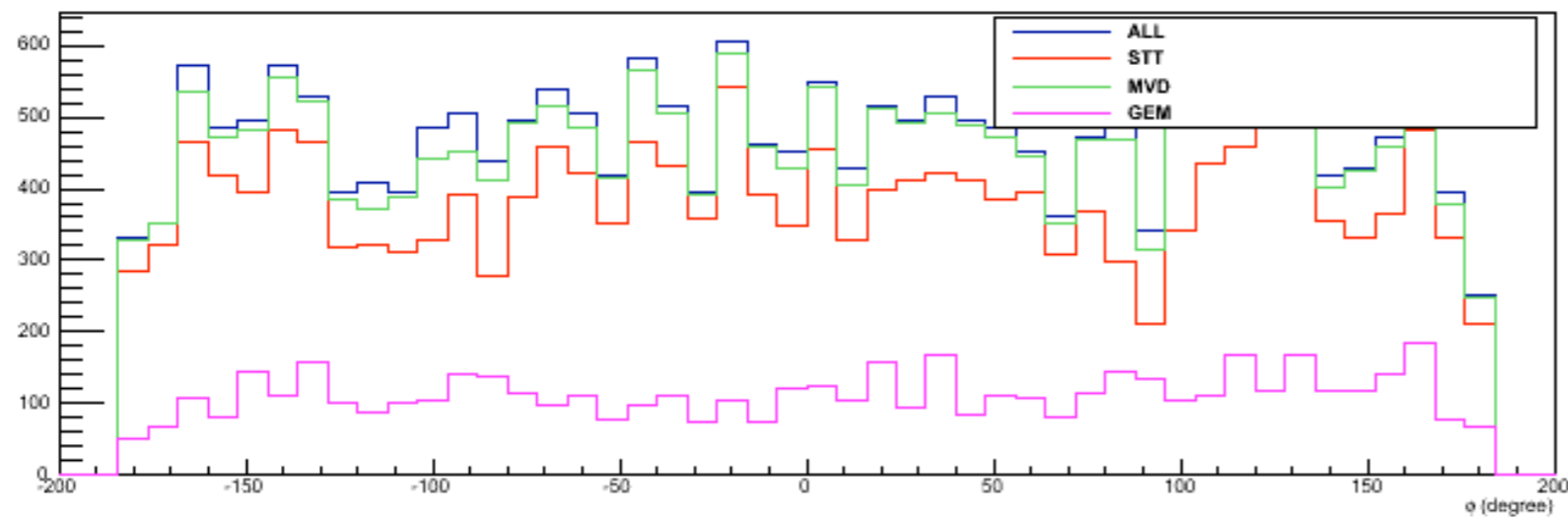


Geometrical coverage - at least one MC point in the detector

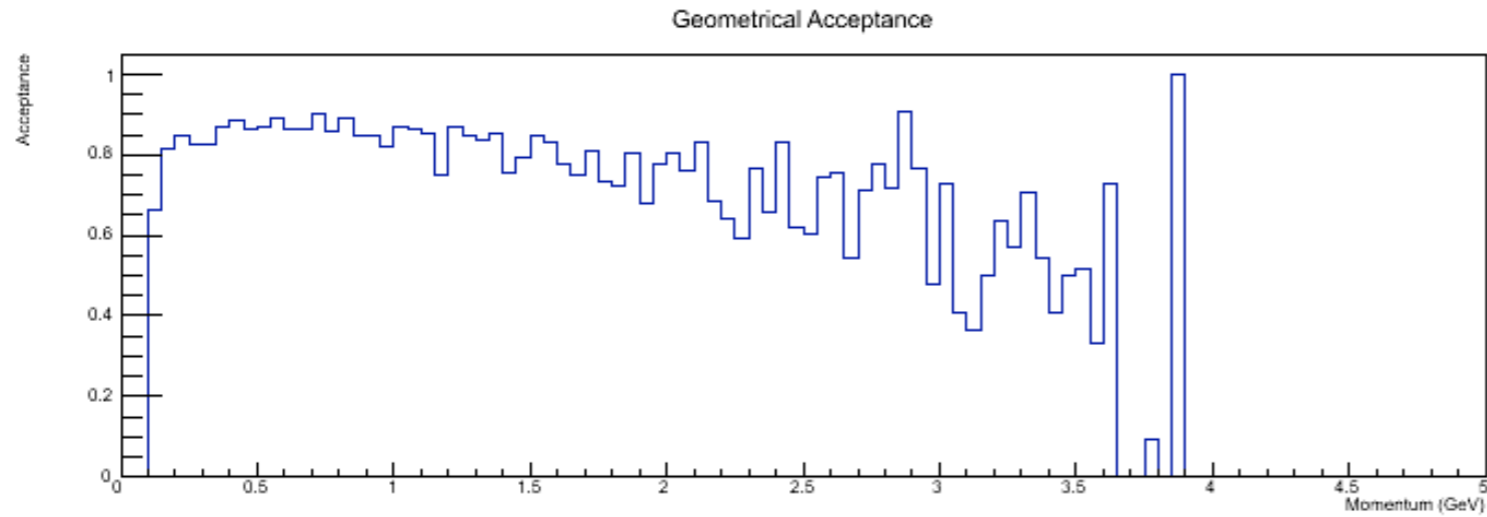
Geometrical coverage for the theta angle



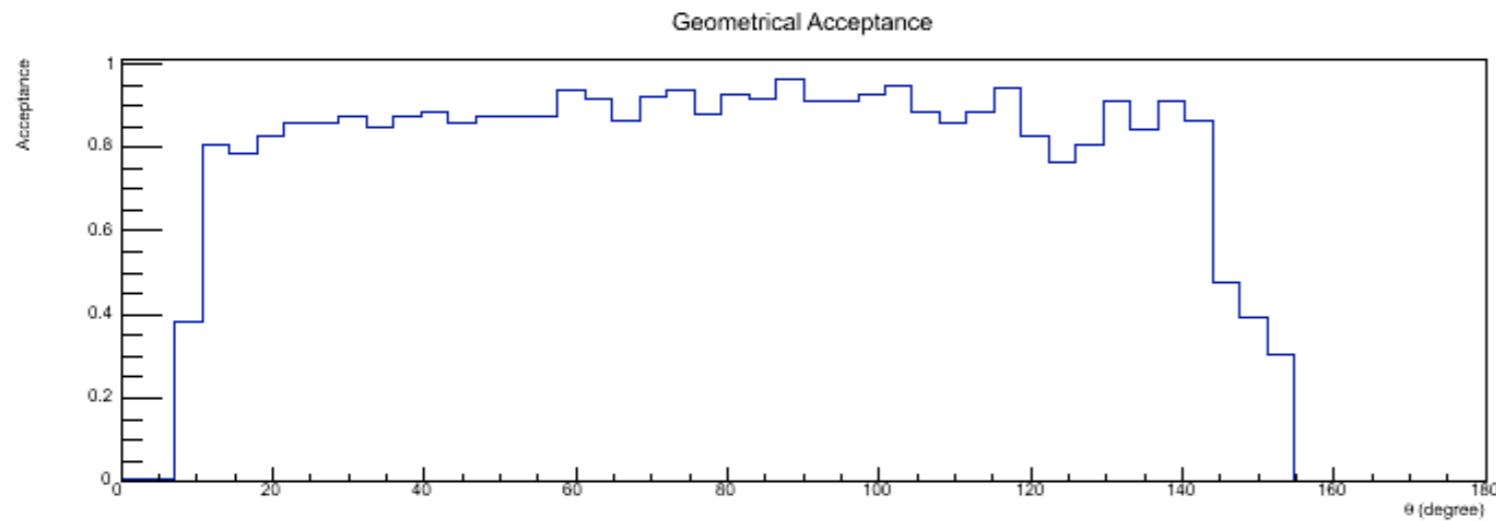
Geometrical coverage for the phi angle



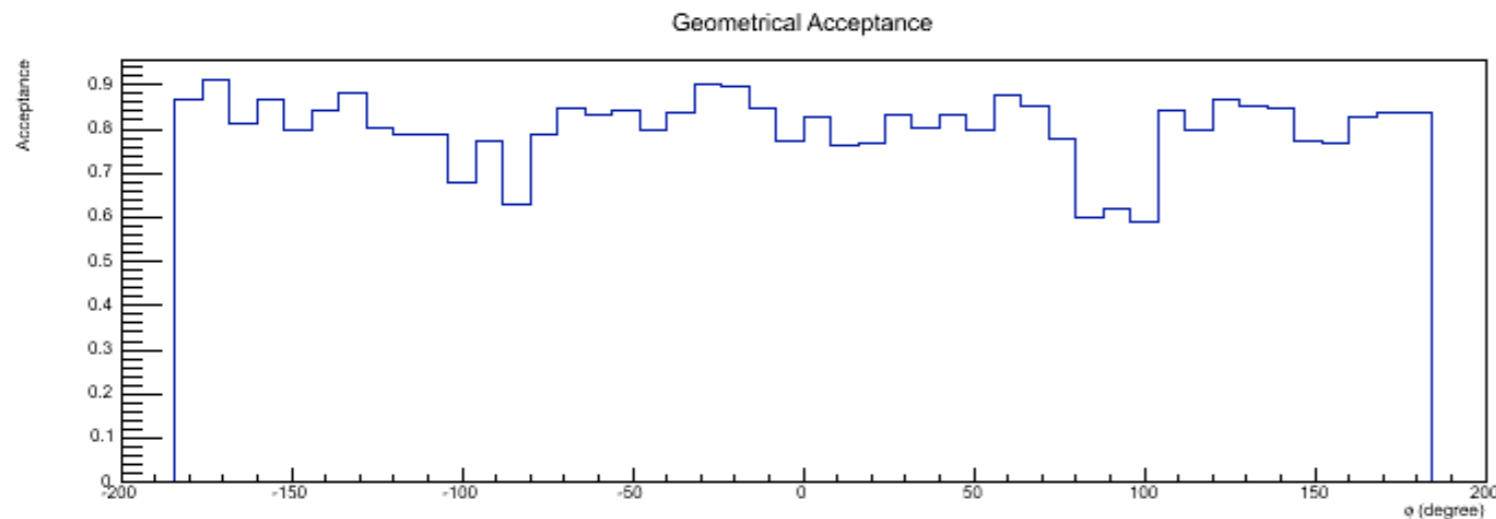
# 5500 STT events fully reconstructed (GRID)



Geometrical coverage - at least one MC point in the detector



Geometrical acceptance only STT



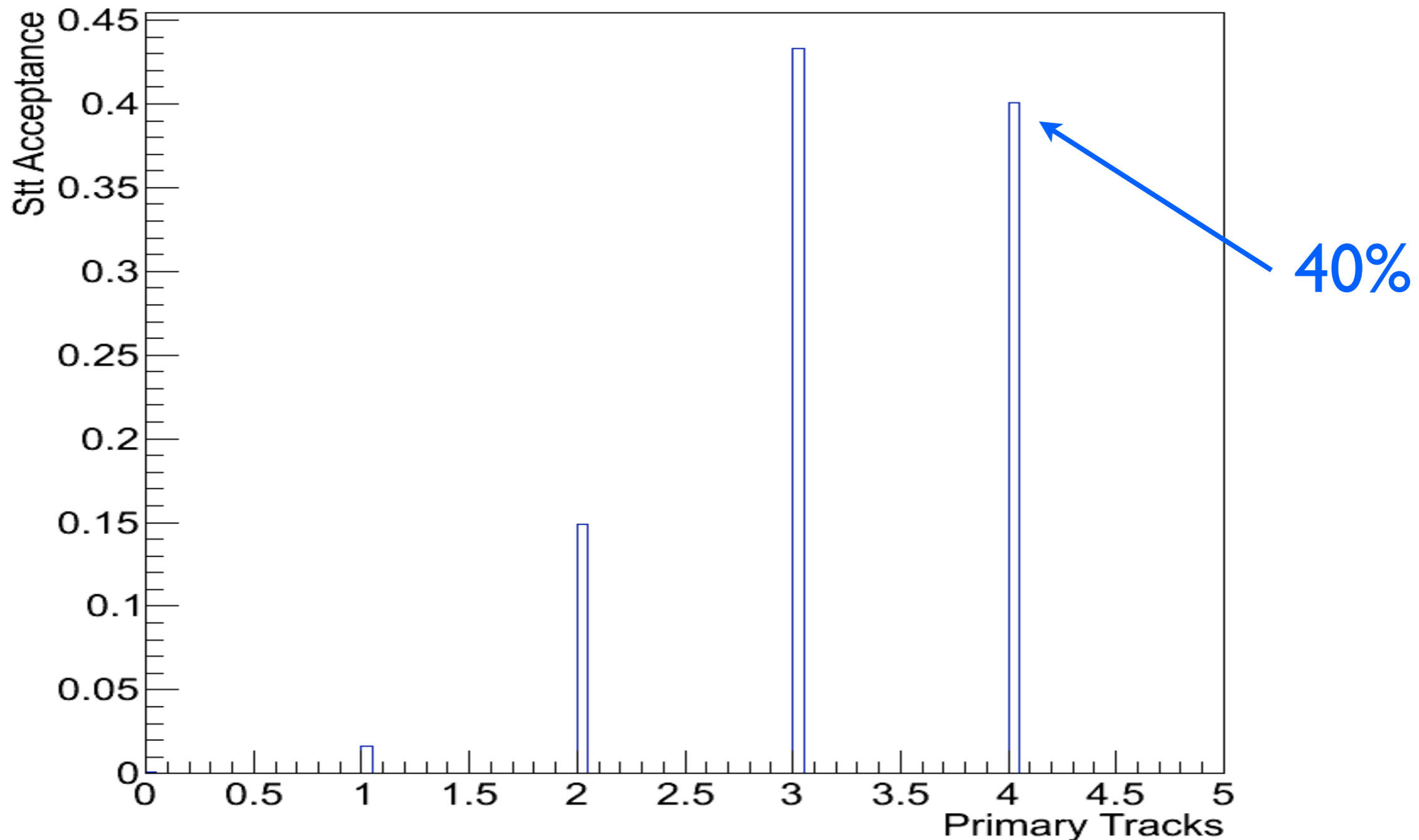


# 5500 STT events fully reconstructed (GRID)

Geometrical coverage - at least one MC point in the detector

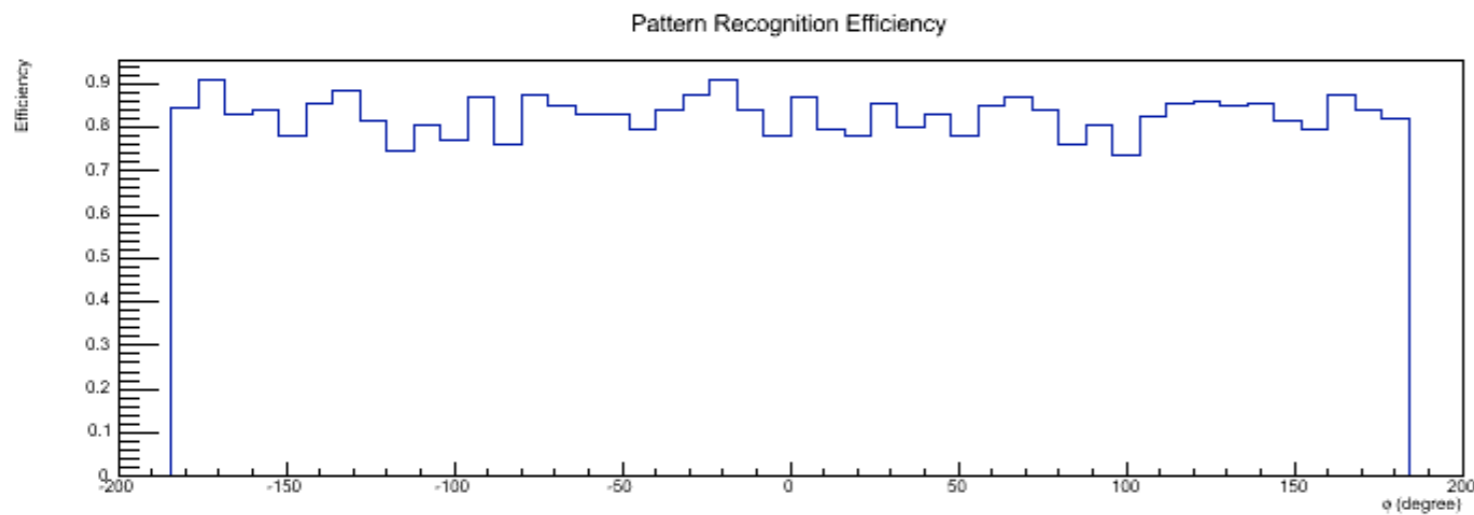
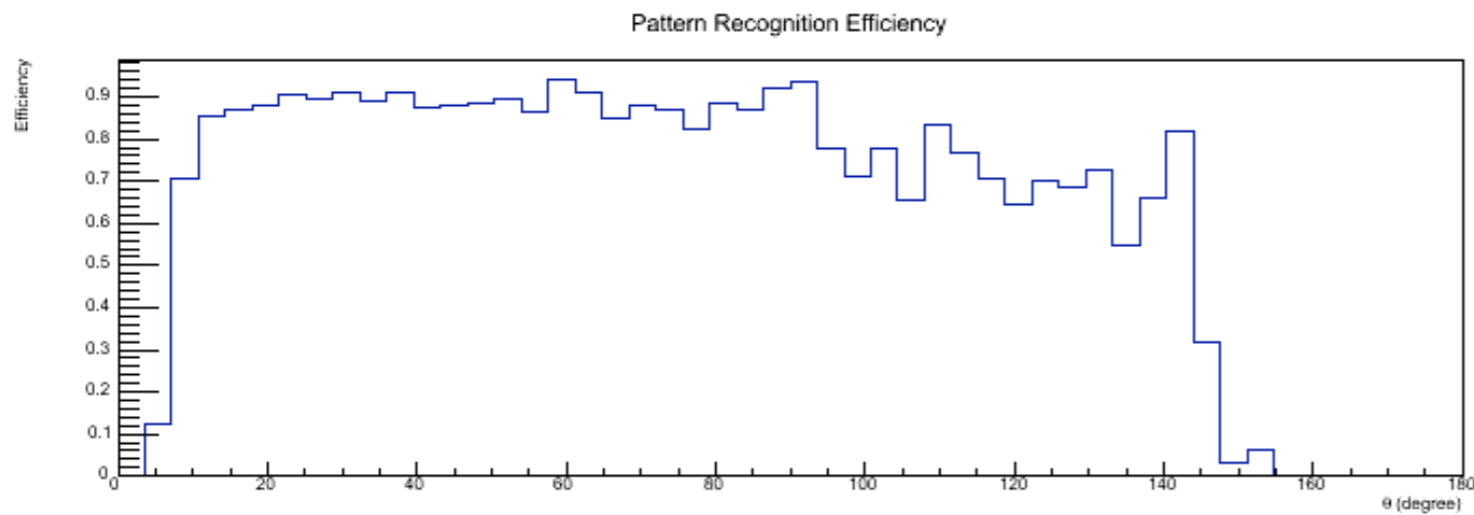
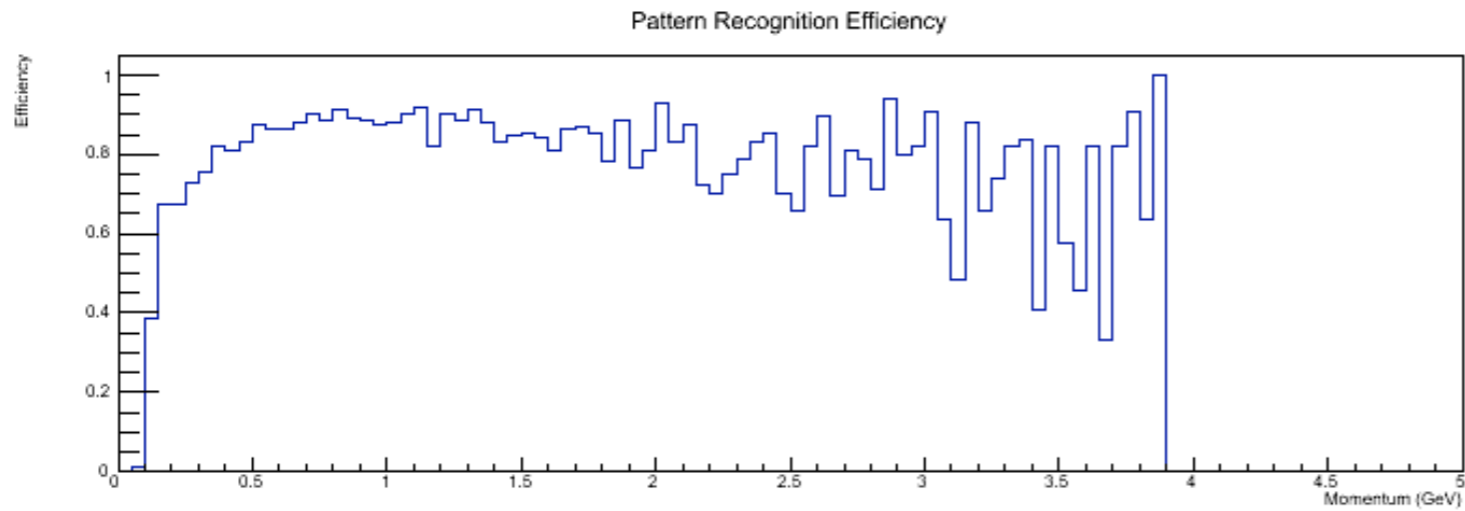
Global Acceptance - how many primary particles in **STT**?

### Global Acceptance



# 5500 STT events fully reconstructed (GRID)

## Pattern recognition efficiency

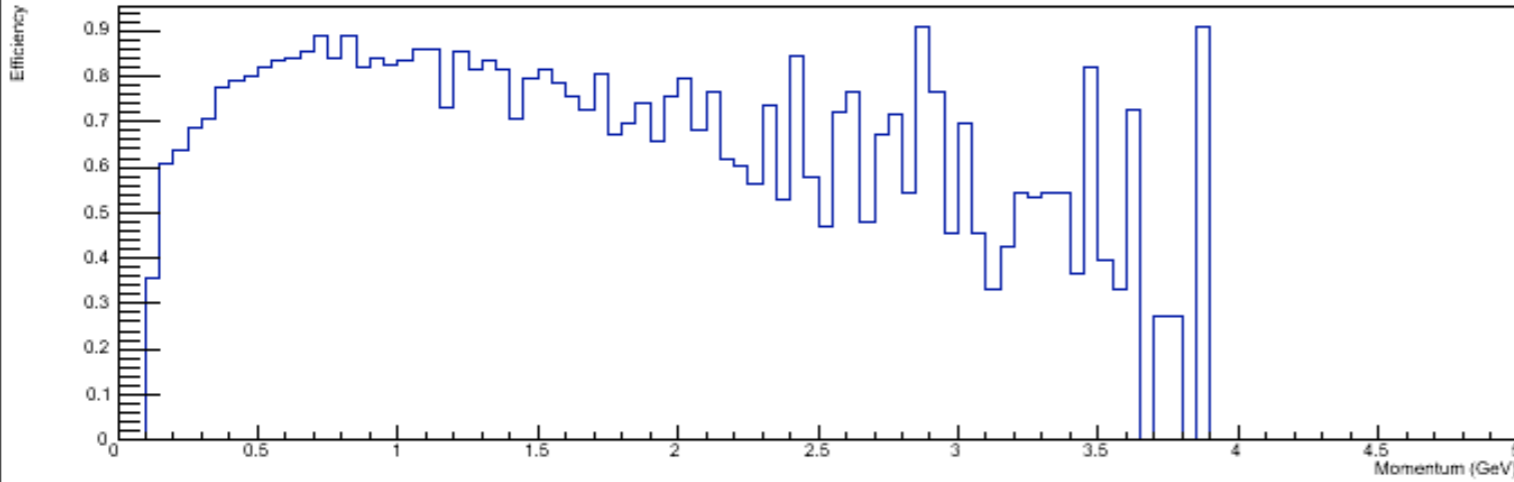


Reconstruction efficiency  
STT+MVD+GEM

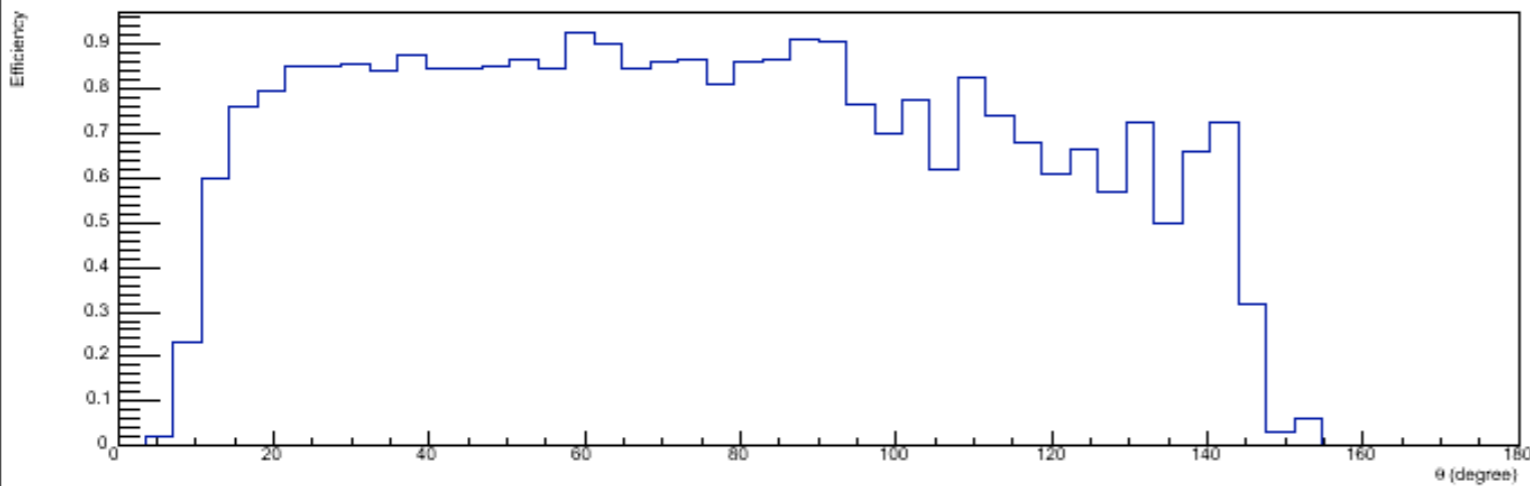
# 5500 STT events fully reconstructed (GRID)

## Pattern recognition efficiency

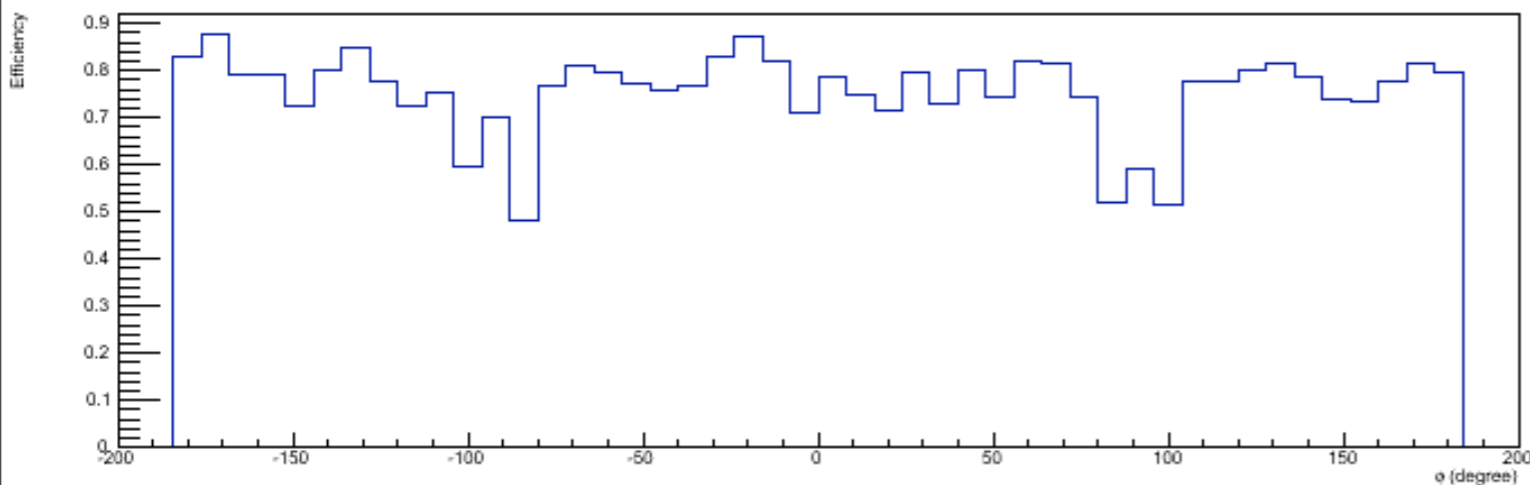
Pattern Recognition Efficiency Only Central Tracker



Pattern Recognition Efficiency Only Central Tracker



Pattern Recognition Efficiency Only Central Tracker

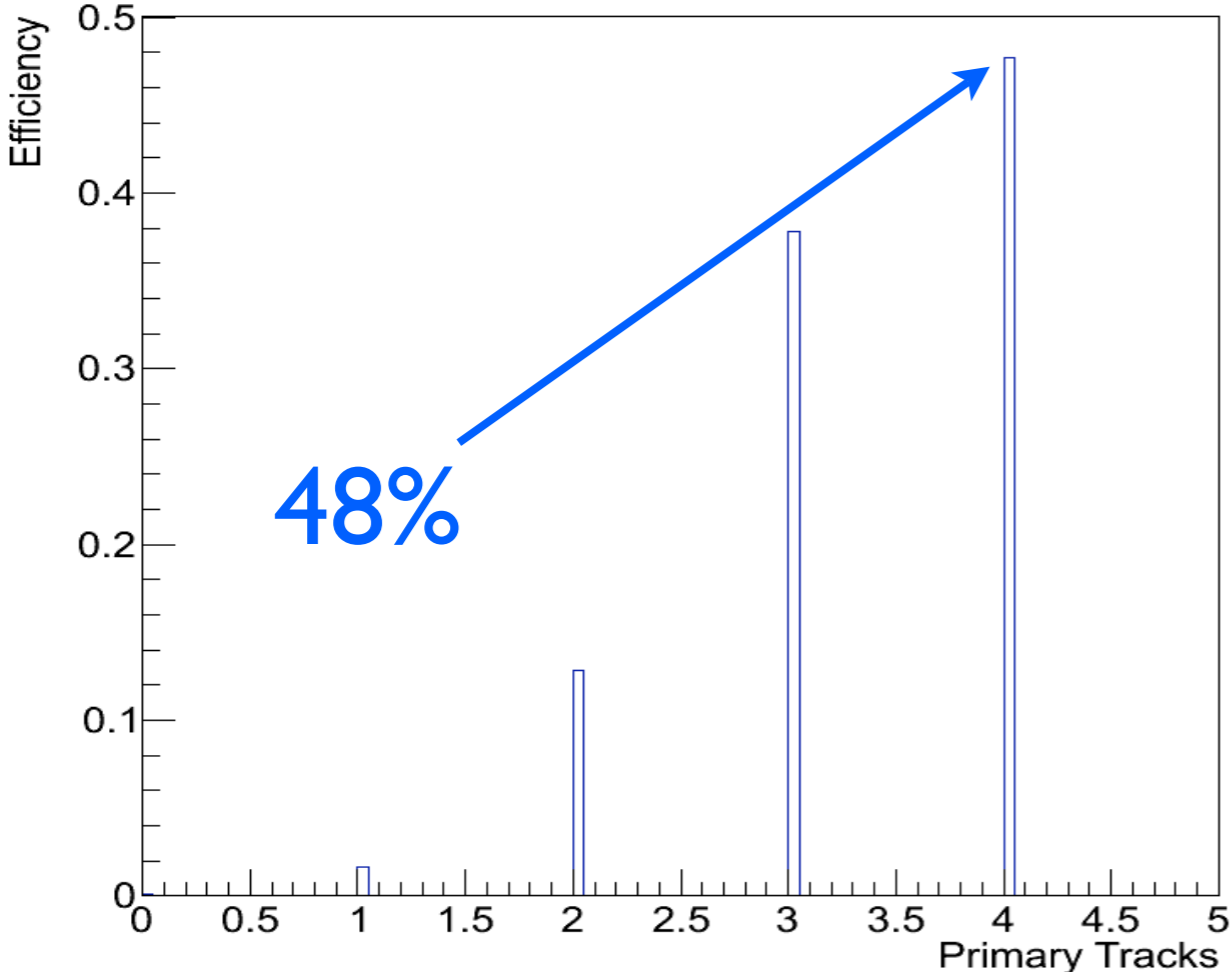


Reconstruction efficiency  
Only STT

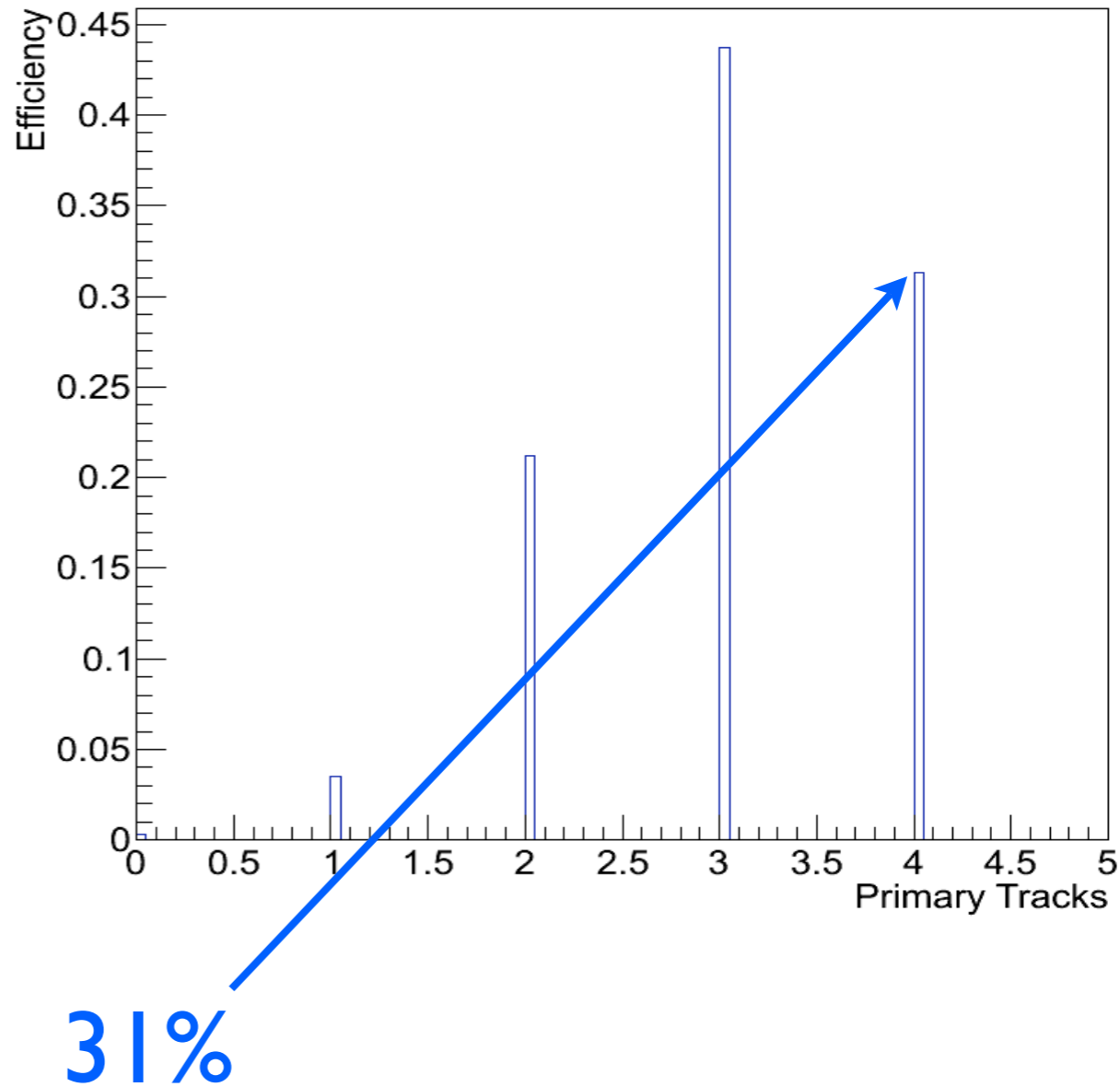
# 5500 STT events fully reconstructed (GRID)

## Global Pattern recognition efficiency

Number of reconstructed primary tracks STT+MVD+GEM



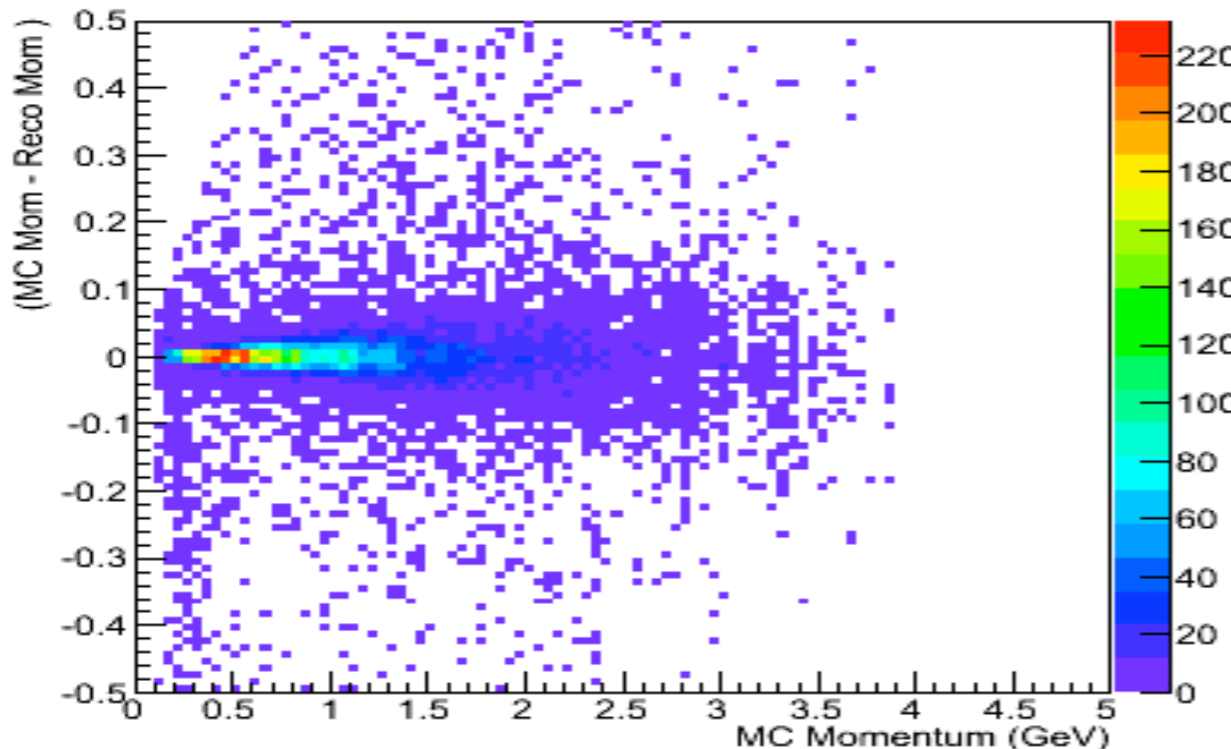
Number of reconstructed primary tracks Only Central Tracker



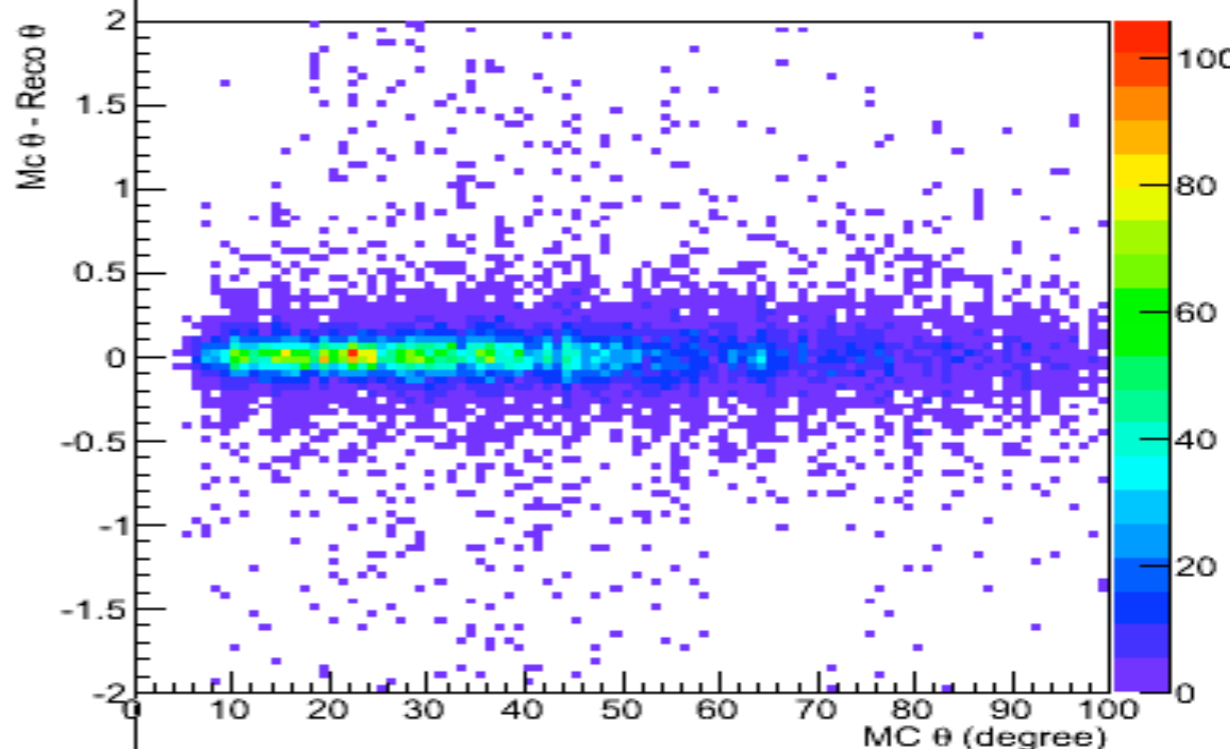
# 5500 STT events fully reconstructed (GRID)

## Resolution

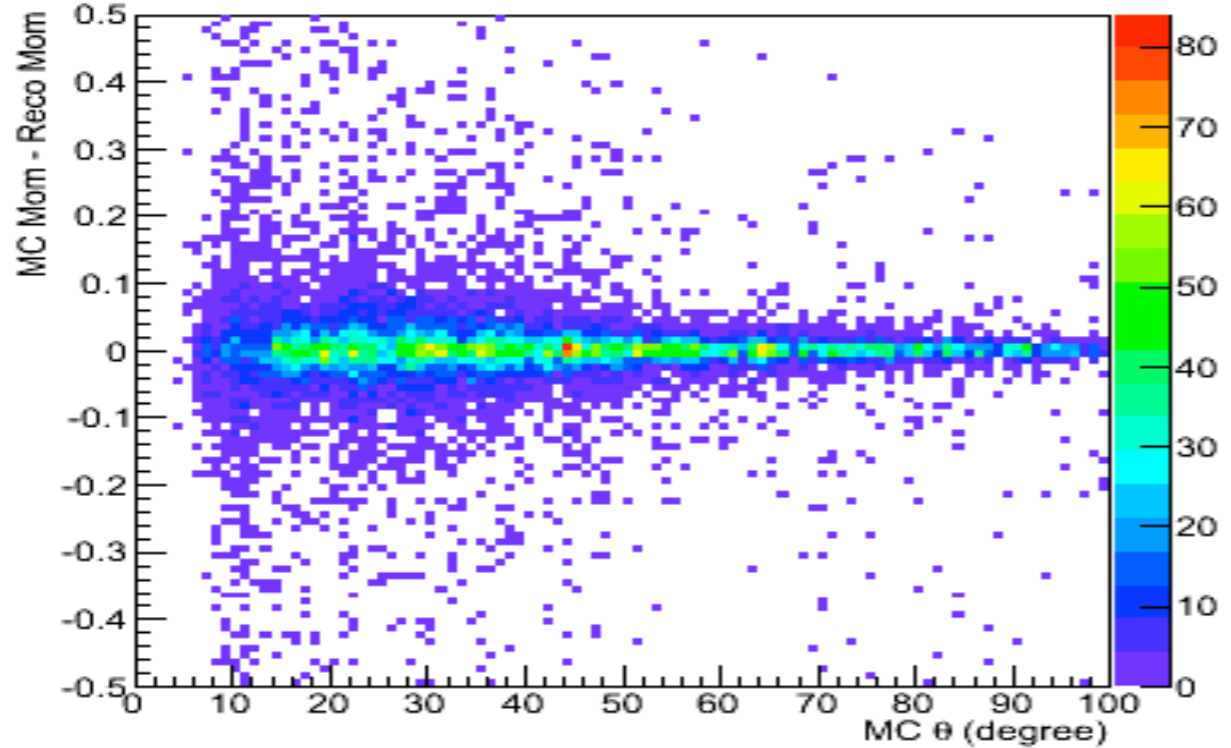
Resolution



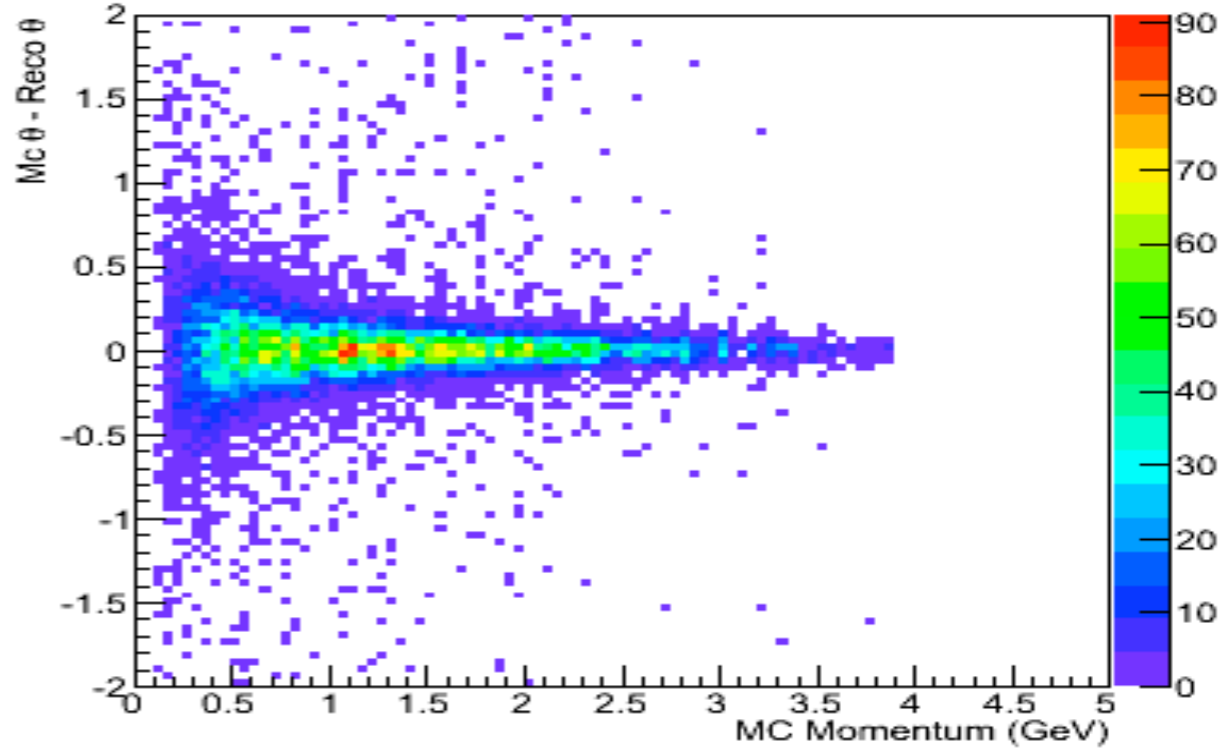
Resolution



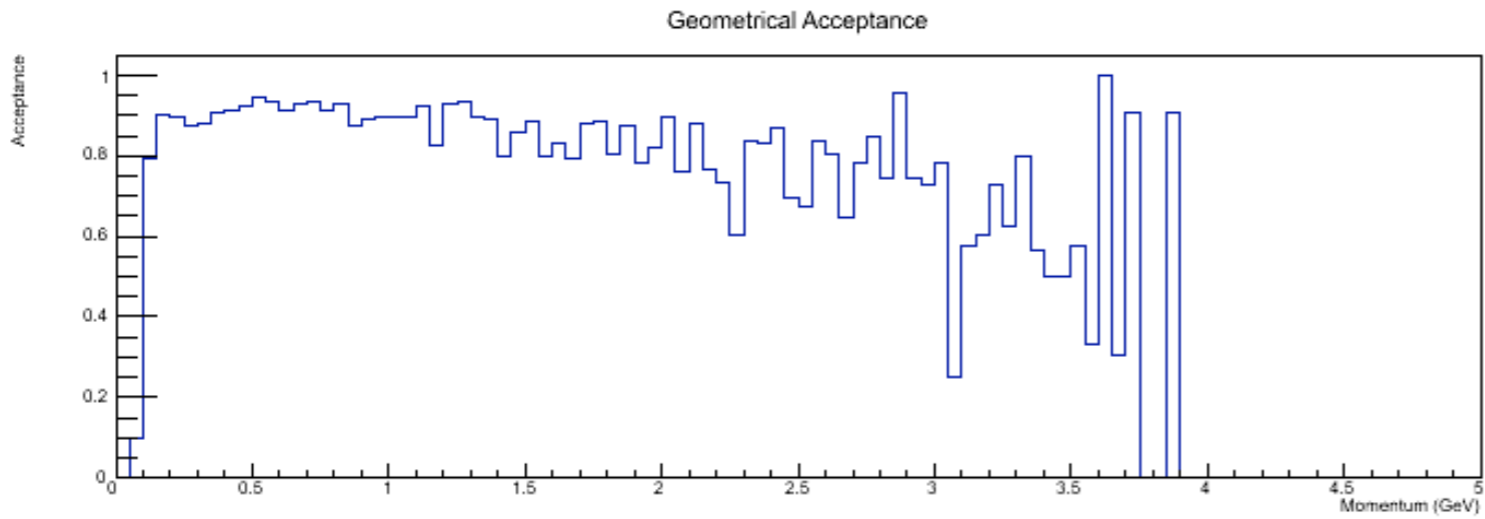
Resolution



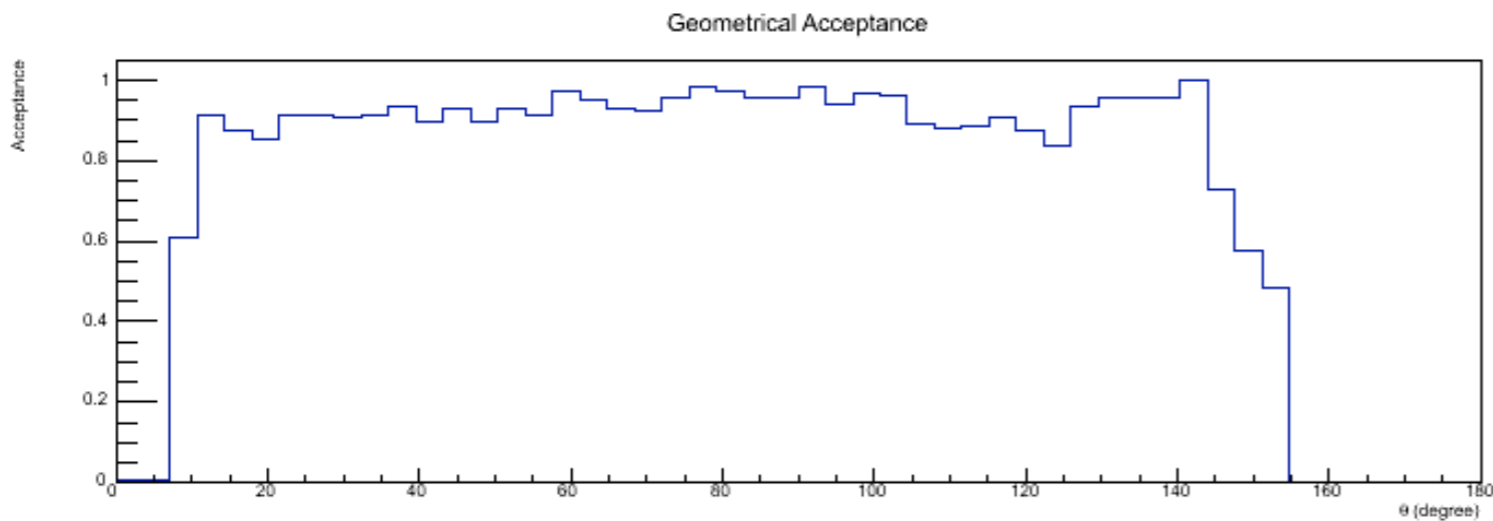
Resolution



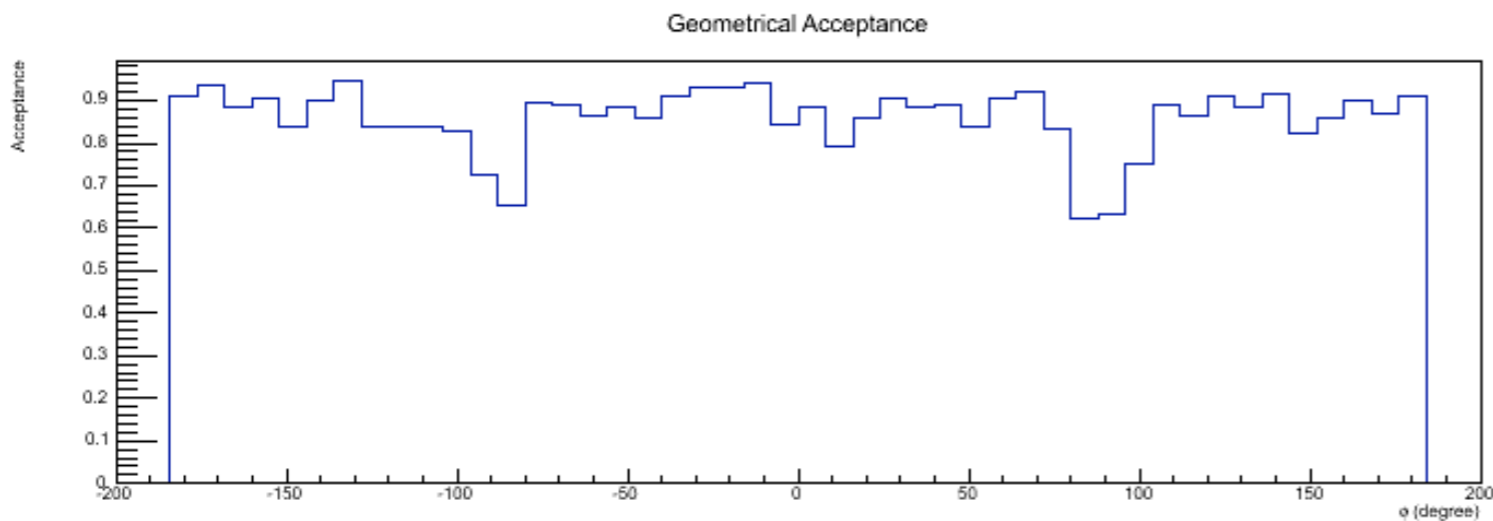
# 5500 TPC events fully reconstructed (GRID)



Geometrical coverage - at least one MC point in the detector



Geometrical acceptance only TPC

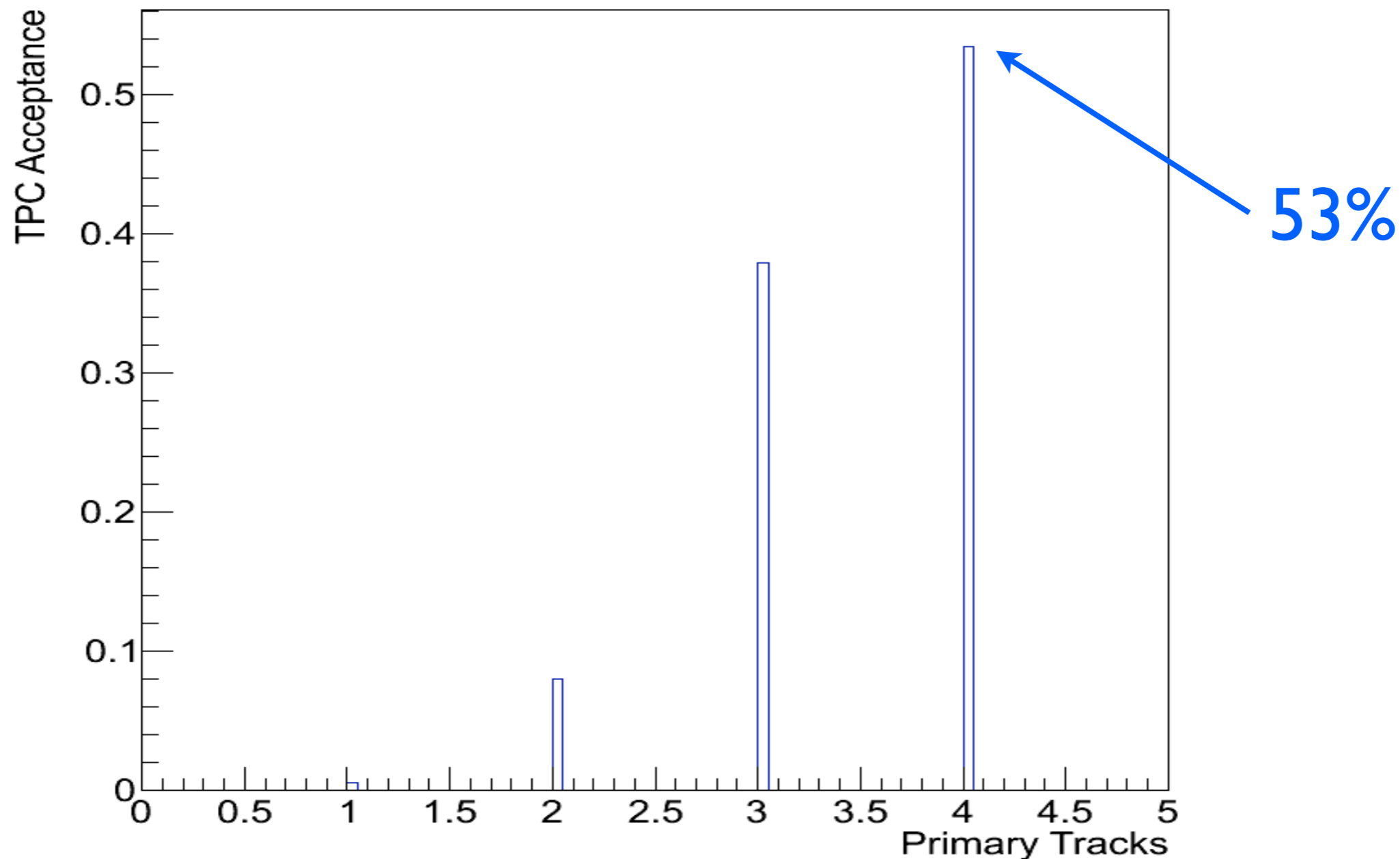


# 5500 TPC events fully reconstructed (GRID)

Geometrical coverage - at least one MC point in the detector

Global Acceptance - how many primary particles in TPC?

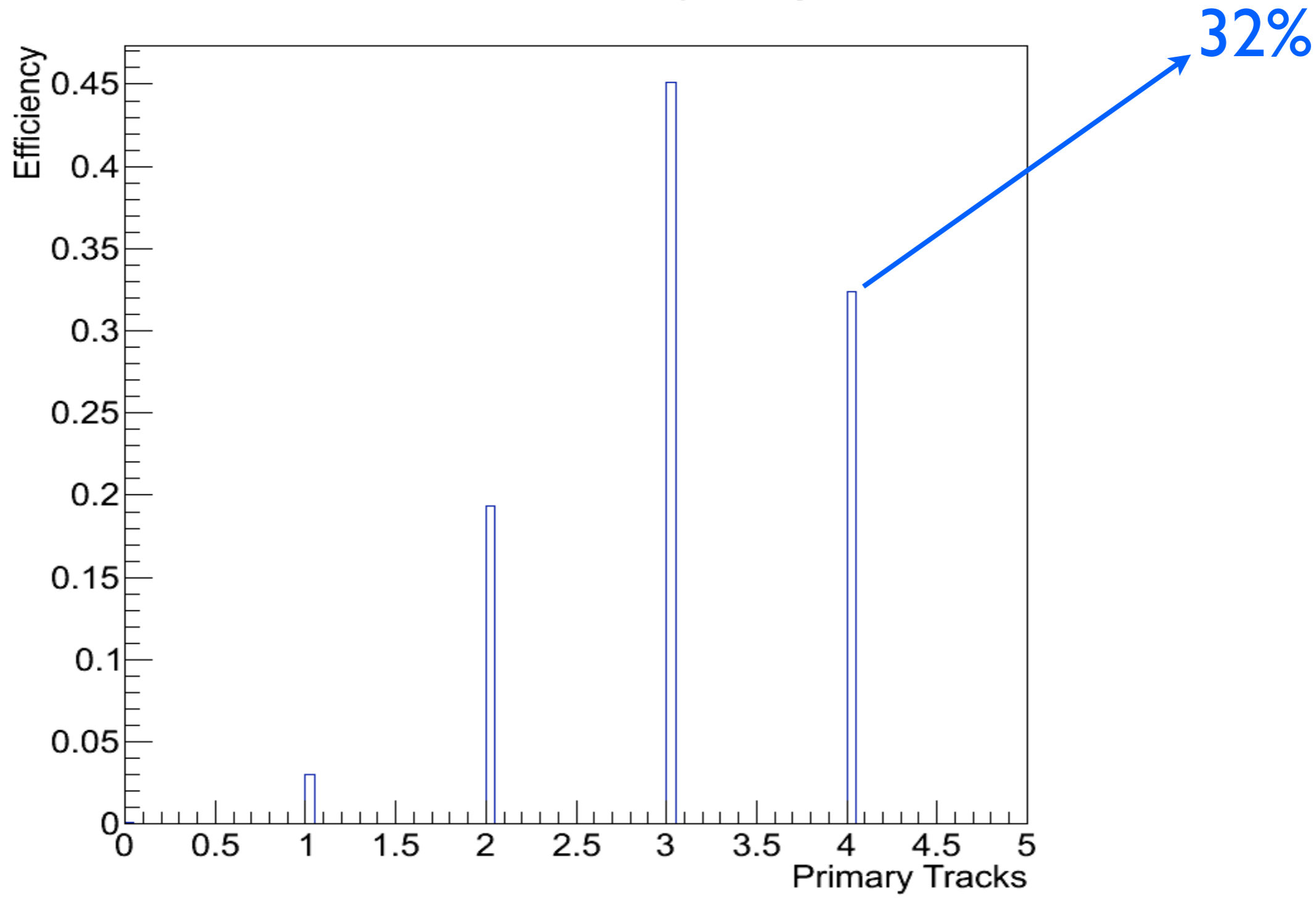
Global Acceptance



# 5500 TPC events fully reconstructed (GRID)

## Global Pattern recognition efficiency

Number of reconstructed primary tracks





# 5500 TPC events fully reconstructed (GRID)

## Resolution

