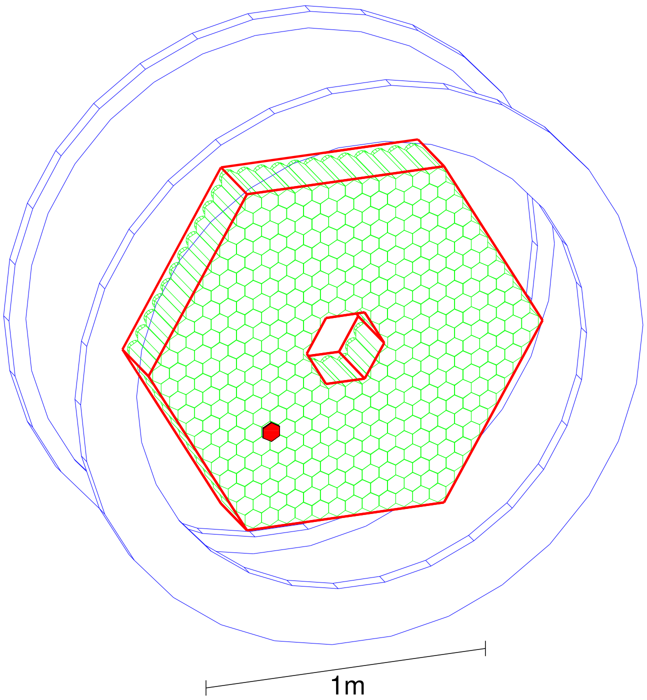


Figure 1:

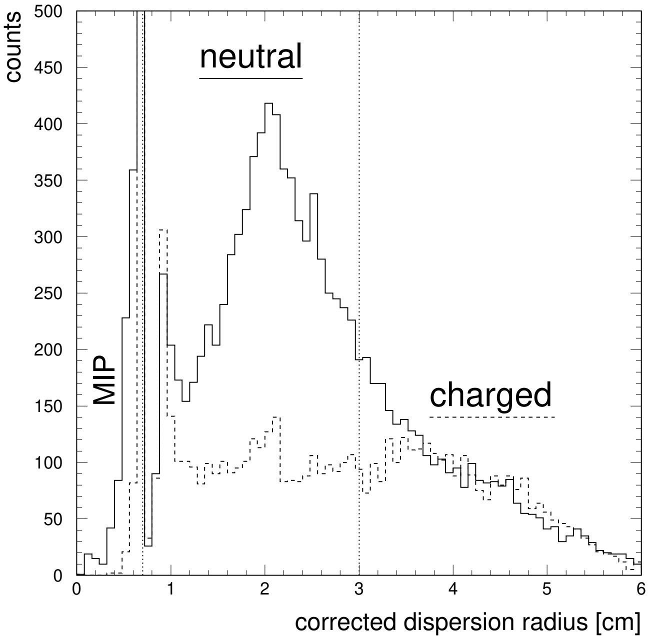

counts
500
450
400
350
300
250
200
150
100
50
0
neutral
charged
MIP
0
1
2
3
4
5
6
corrected dispersion radius [cm]

Figure 2:

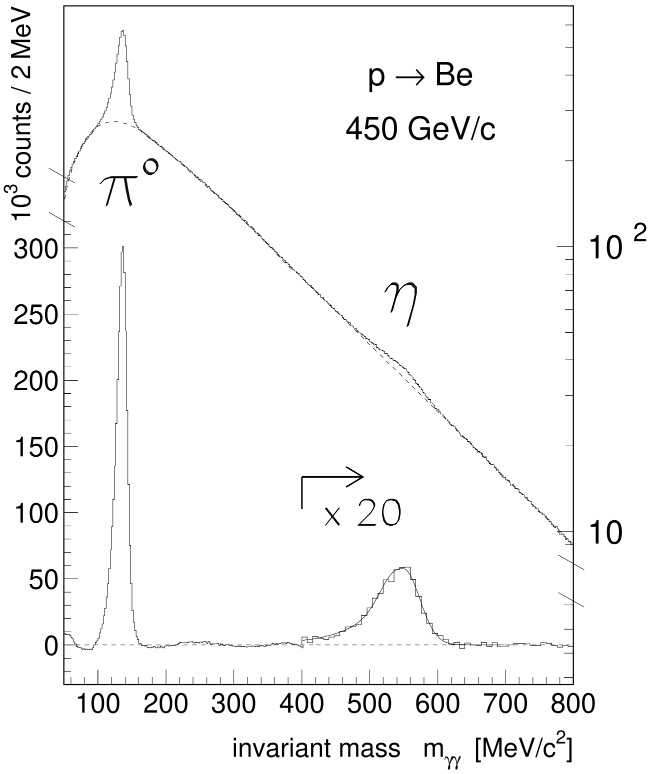
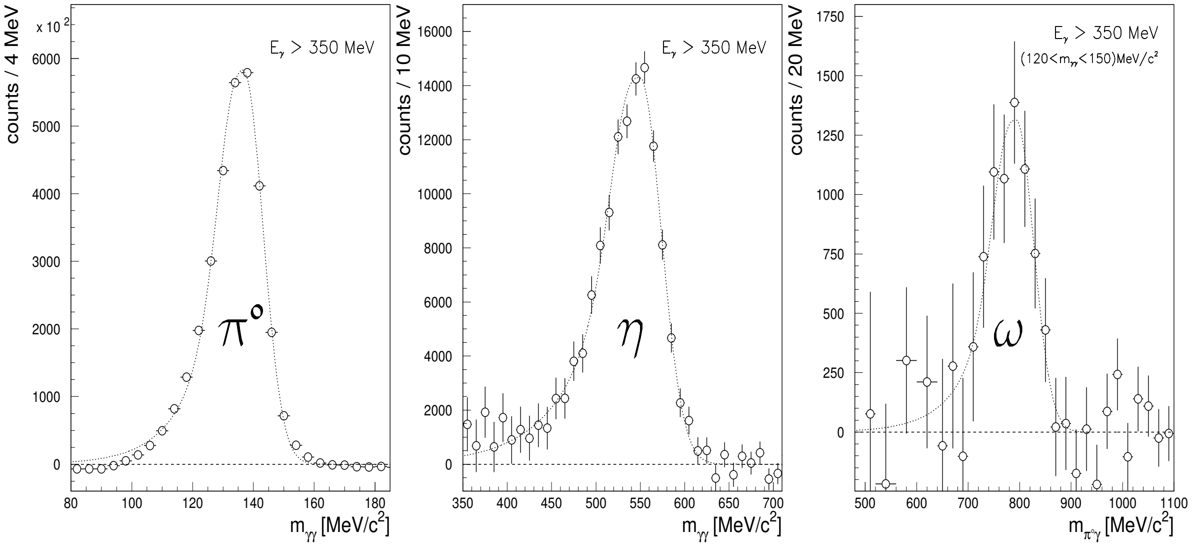

10^3 counts / 2 MeV
300
250
200
150
100
50
0
100
200
300
400
500
600
700
800
invariant mass $m_{\gamma\gamma}$ [MeV/c^2]
p → Be
450 GeV/c
π^o
η
x 20
10 ^{2}
10

Figure 3:

Figure 4:


counts / 4 MeV
x 10^2
0
1000
2000
3000
4000
5000
6000
E_γ > 350 MeV
π°
80
100
120
140
160
180
m_γγ [MeV/c²]
counts / 10 MeV
0
2000
4000
6000
8000
10000
12000
14000
16000
E_γ > 350 MeV
η
350
400
450
500
550
600
650
700
m_γγ [MeV/c²]
counts / 20 MeV
0
250
500
750
1000
1250
1500
1750
E_γ > 350 MeV
(120<m_γγ<150)MeV/c²
ω
500
600
700
800
900
1000
1100
m_π°γ [MeV/c²]

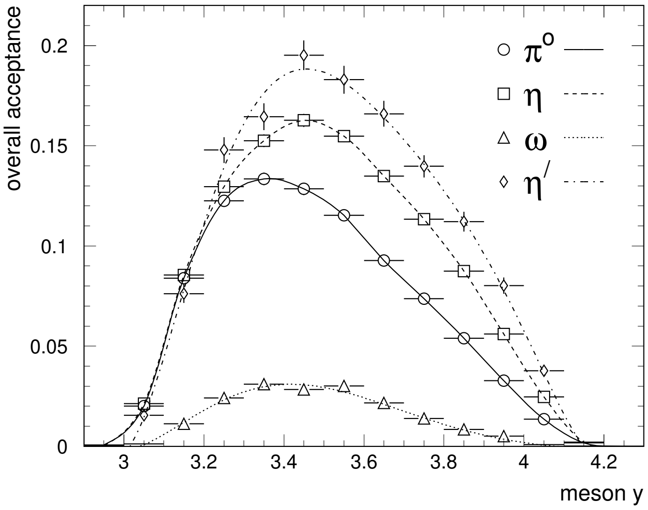


Figure 5:

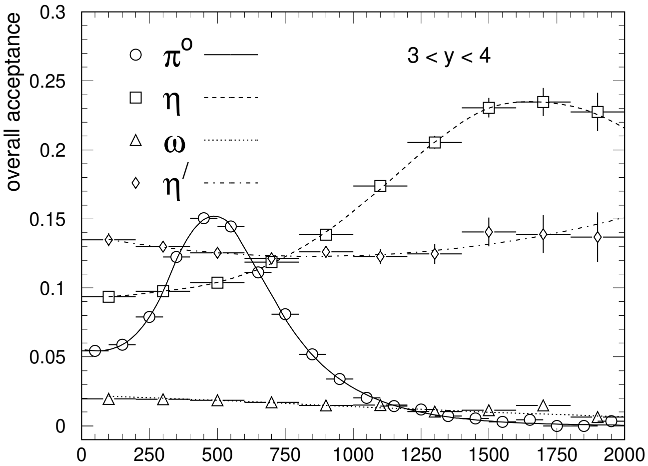


Figure 6:

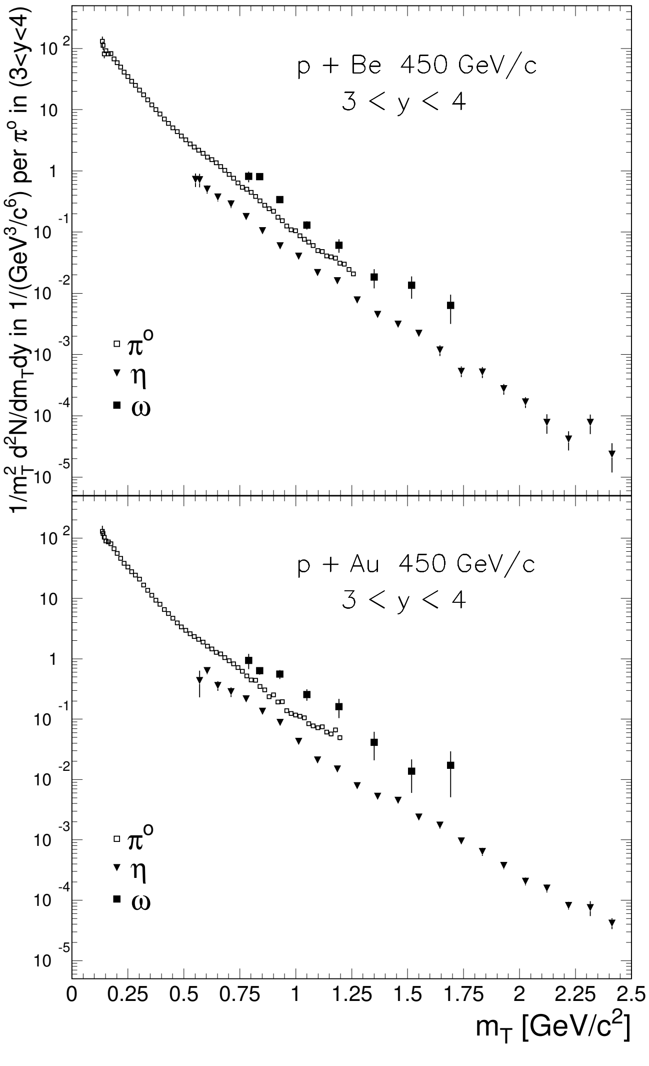

1/m$_T^2$ d^{2}N/dm$_T$dy in 1/(GeV^3/c^6) per π^o in (3<y<4)
p + Be 450 GeV/c
3 < y < 4
p + Au 450 GeV/c
3 < y < 4
π^o
η
ω
10^2
10
1
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
0
0.25
0.5
0.75
1
1.25
1.5
1.75
2
2.25
2.5
m$_T$ [GeV/c^2]

Figure 7:

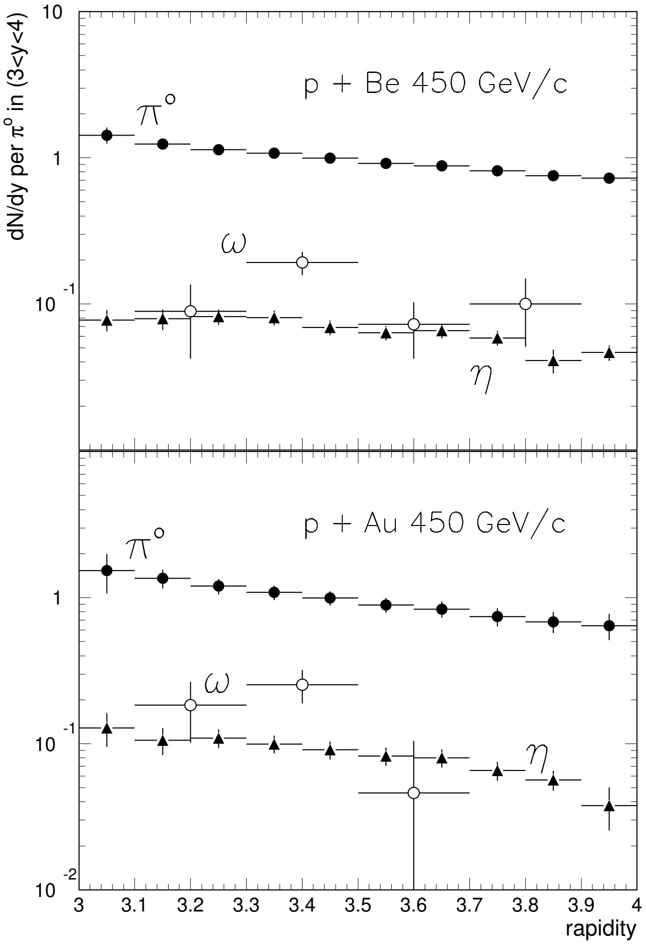
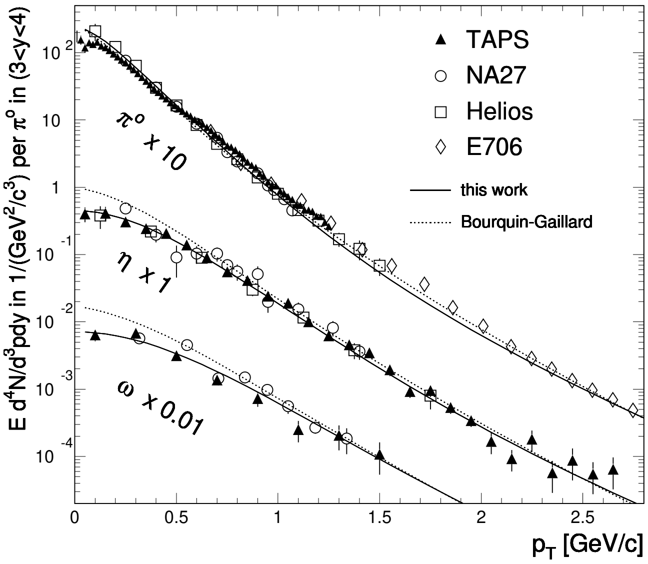
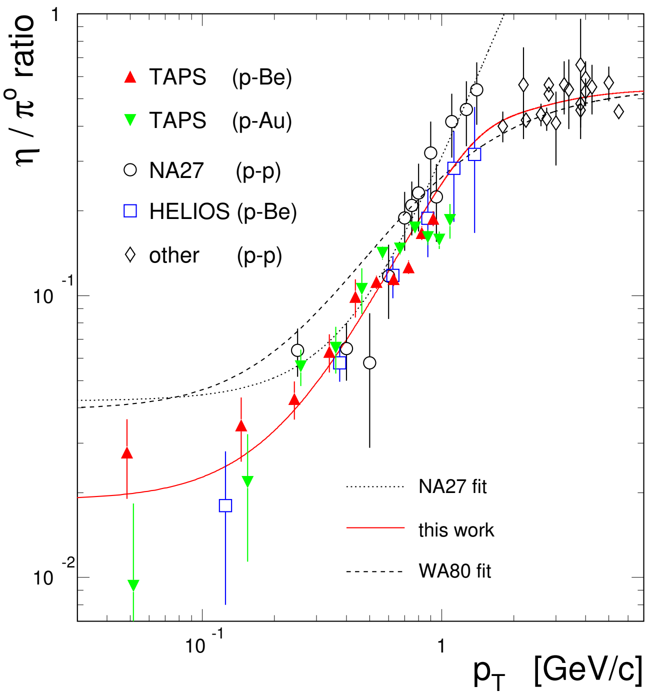

dN/dy per π^0 in (3<y<4)
p + Be 450 GeV/c
p + Au 450 GeV/c
π^0
ω
η
10
1
10^{-1}
10^{-2}
3
3.1
3.2
3.3
3.4
3.5
3.6
3.7
3.8
3.9
4
rapidity

Figure 8:



$E\,d^4N/d^3p\,dy$ in $1/(GeV^2/c^3)$ per π^0 in (3<y<4)
10^2
10
1
10^{-1}
10^{-2}
10^{-3}
10^{-4}
0
0.5
1
1.5
2
2.5
p_T [GeV/c]
π^0 x 10
η x 1
ω x 0.01
▲ TAPS
○ NA27
□ Helios
◇ E706
this work
Bourquin-Gaillard

Figure 9:



η / π° ratio
1
10⁻¹
10⁻²
10⁻¹
1
p_T [GeV/c]
▲ TAPS (p-Be)
▼ TAPS (p-Au)
○ NA27 (p-p)
□ HELIOS (p-Be)
◊ other (p-p)
NA27 fit
this work
WA80 fit

Figure 10:

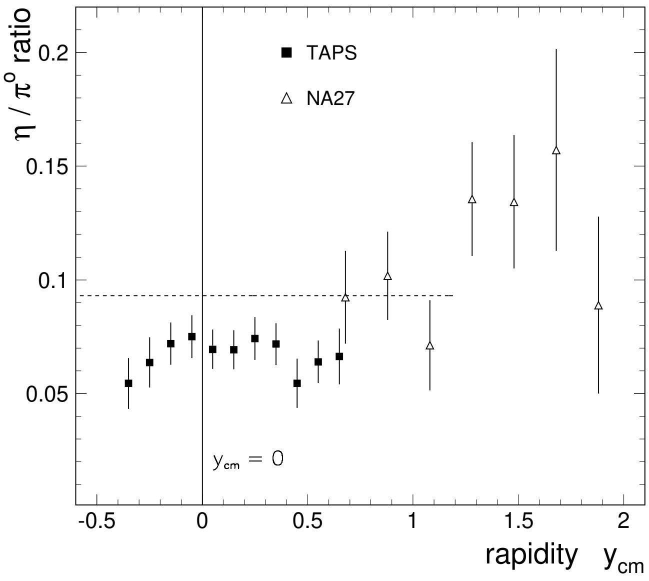


Figure 11:

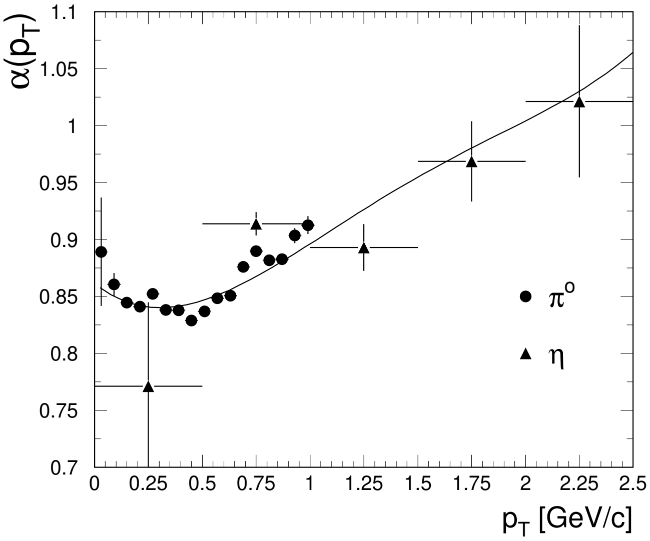


Figure 12: