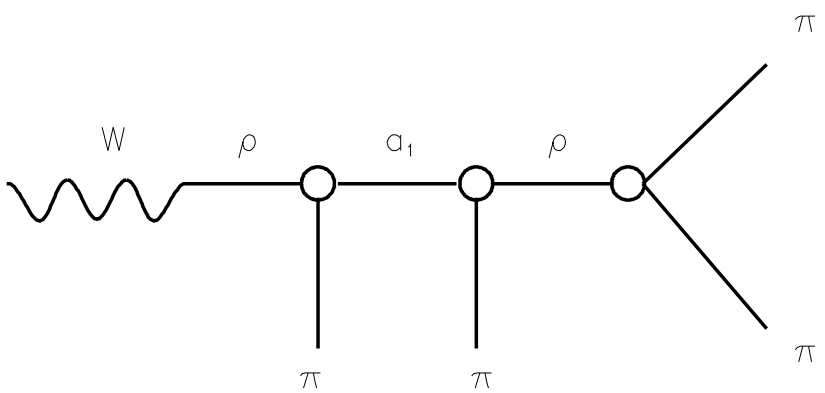
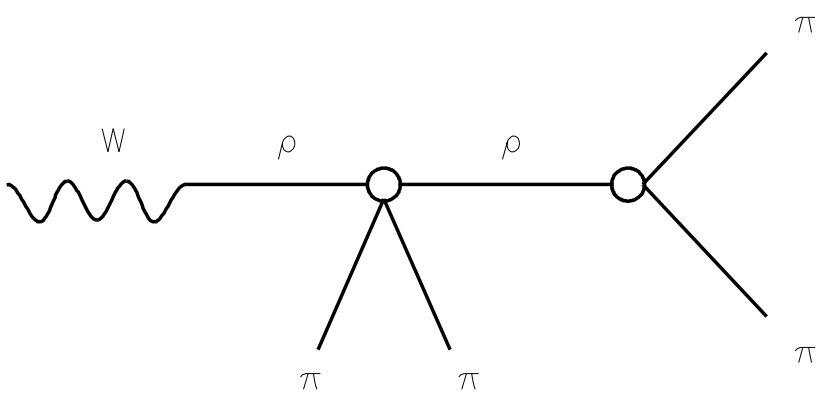
Fig. 1: Hadronic current for the process (a) $\tau \to \nu_\tau \rho, \rho \to a_1 \pi, a_1 \to \rho\pi, \rho \to \pi\pi$ and (b) $\tau \to \nu_\tau \rho, \rho \to (\pi\pi)_s \rho, \rho \to \pi\pi$



(a)



(b)

Fig. 2: Hadronic current of the anomalous part

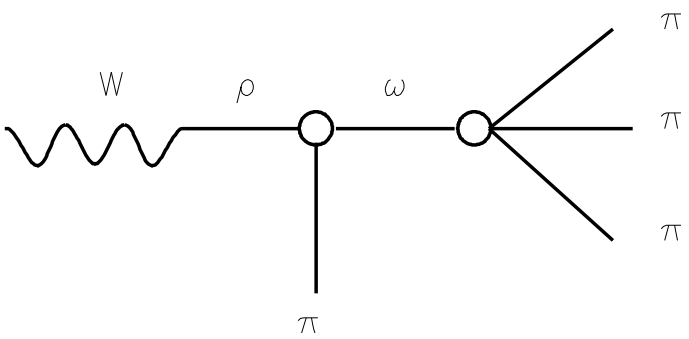


Fig. 4(a): Cross section for $e^+e^- \to 2\pi^+2\pi^-$: Data from Nowosibirsk (dots with error bars) [12] , from Frascati (triangles) [13] and from Orsay (crosses) [14], and the result of our model (solid line).

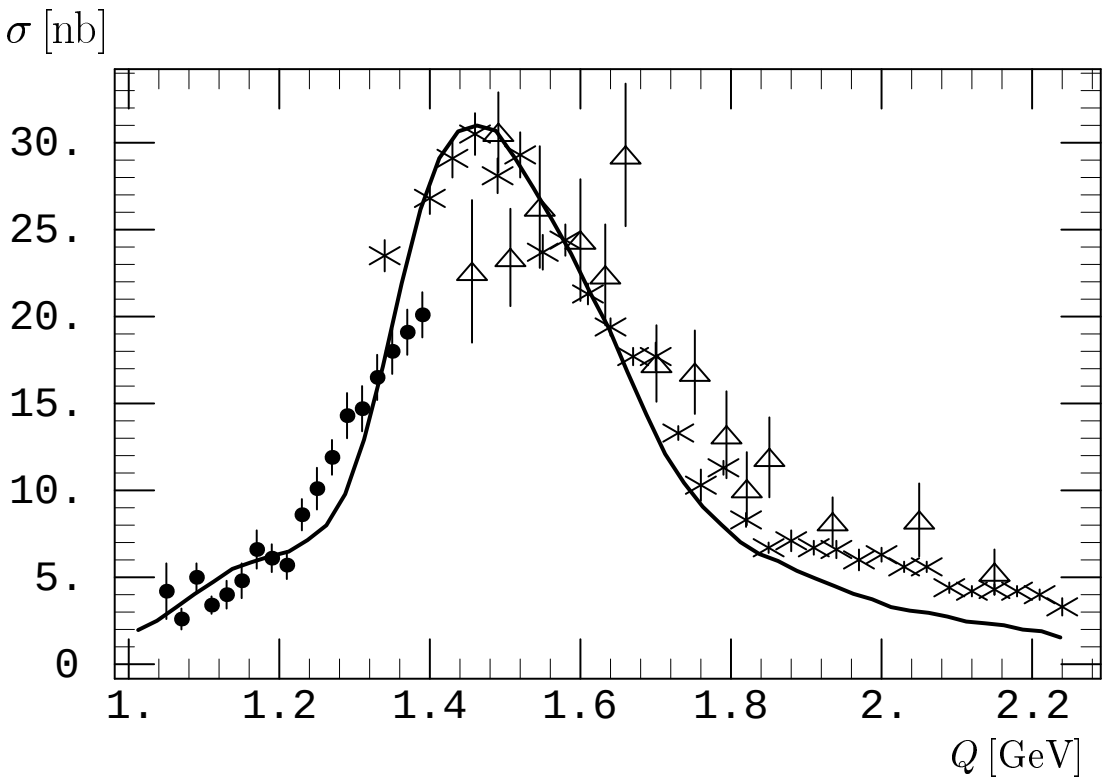


Fig. 4(b): Cross section for $e^+e^- \to \pi^+\pi^- 2\pi^0$: Data from Nowosibirsk (dots with error bars) [12] , from Frascati (triangles) [13] and from Orsay (crosses) [14], and the result of our model (solid line).

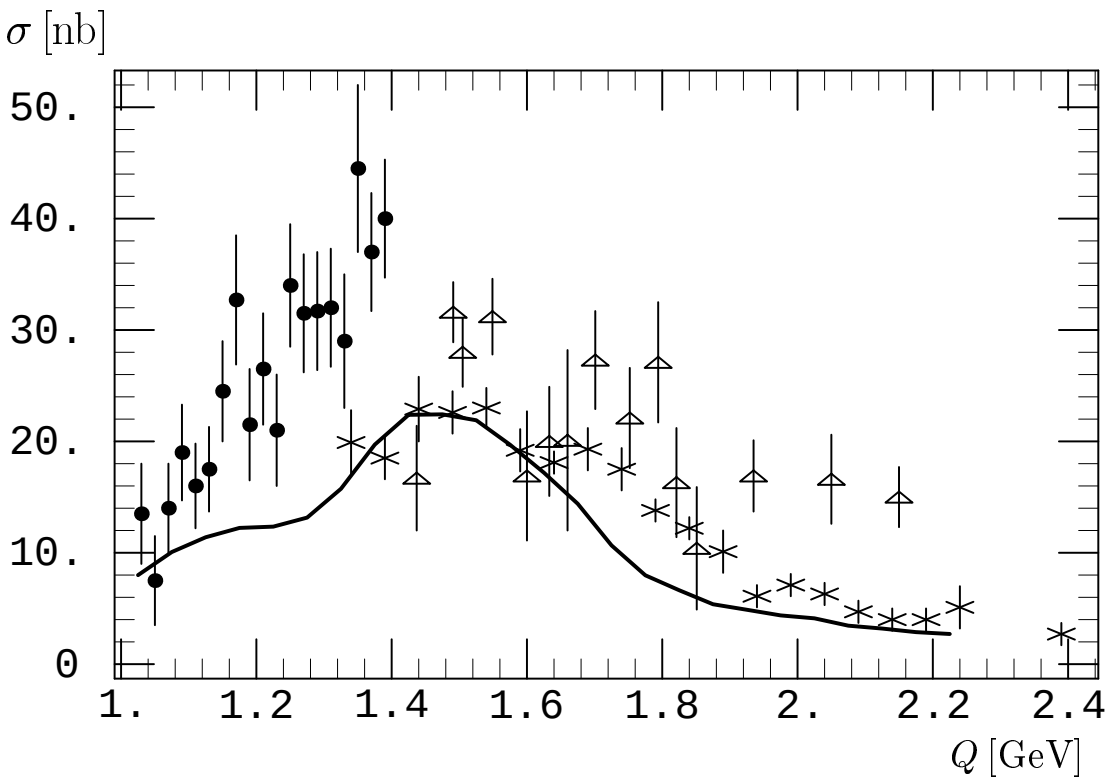


Fig. 5: Distribution of the invariant mass of the four pion system in the decay $\tau^- \to \nu_\tau 2\pi^-\pi^+\pi^0$: Data from Argus (dots with error bars) [4], the result of our model (lego plot with solid lines) and the one of Tauola 2.4 (lego plot with dotted lines).

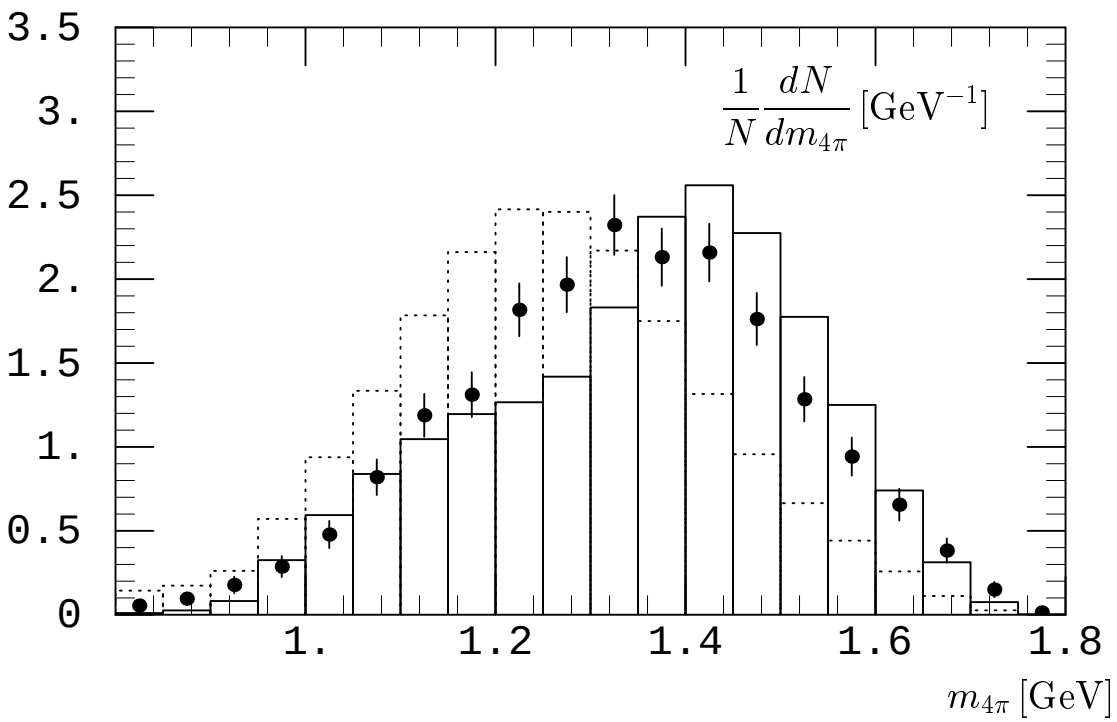


Fig. 6: Distribution of the invariant mass of the $\pi^+\pi^-\pi^0$ subsystem in the decay $\tau^- \to \nu_\tau 2\pi^-\pi^+\pi^0$: (two entries per event). Data from Argus (dots with error bars) [4], the result of our model (lego plot with solid lines) and the one of Tauola 2.4 (lego plot with dotted lines).

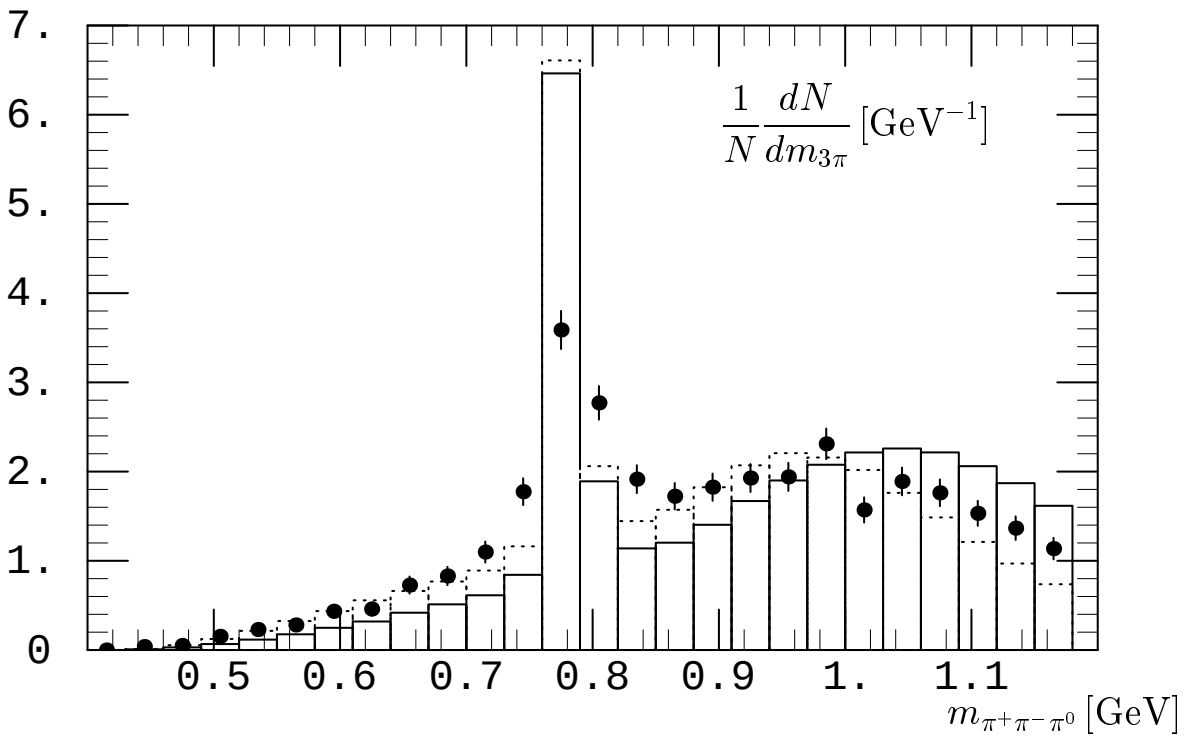
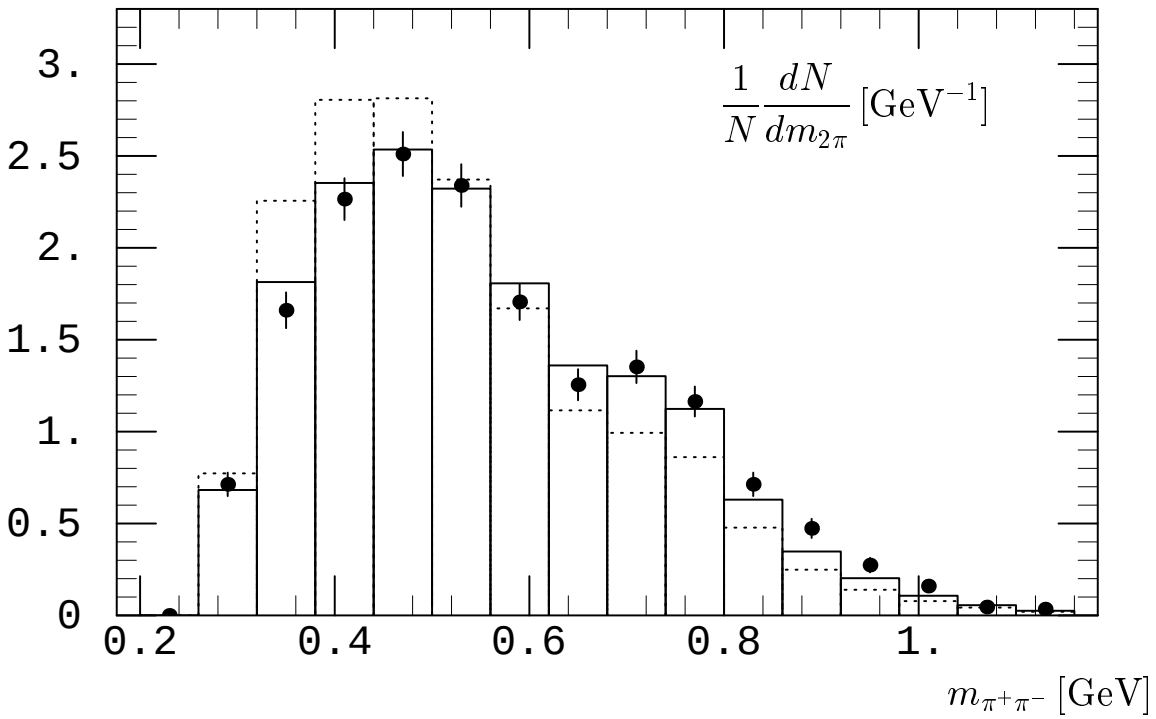
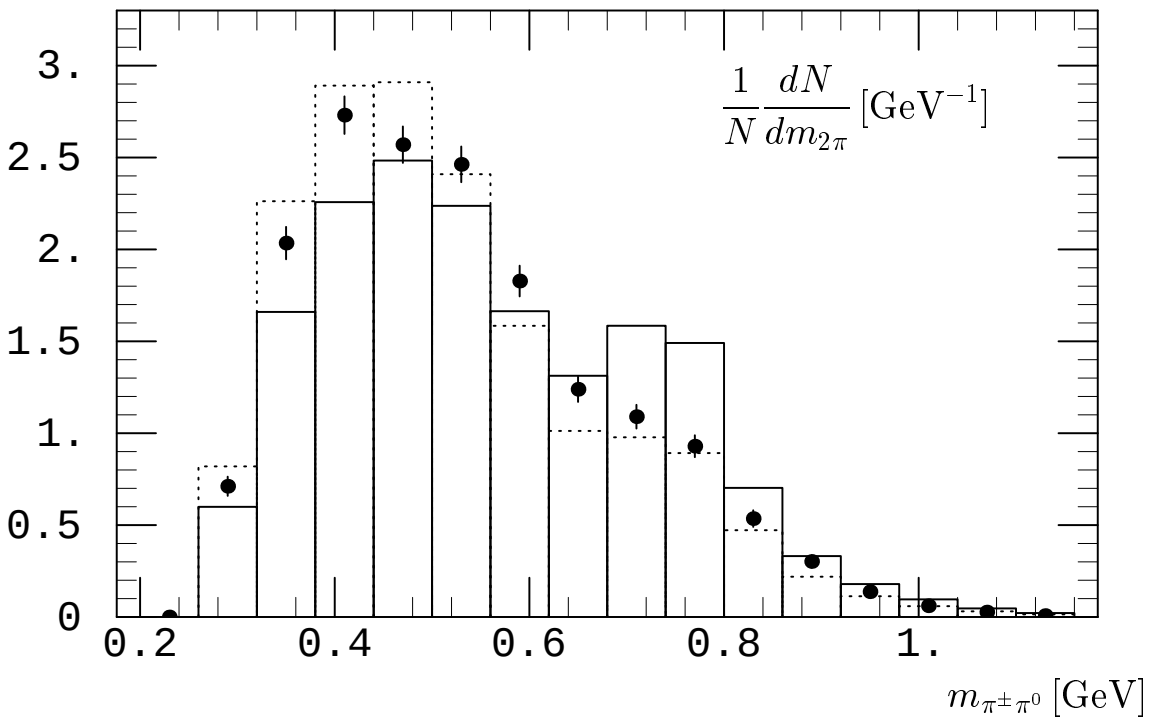


Fig. 7: Distribution of the invariant mass of various two-pion subsystems in the decay $\tau^- \to \nu_\tau 2\pi^-\pi^+\pi^0$: Data from Argus (dots with error bars) [4], the result of our model (lego plots with solid lines) and the one of Tauola 2.4 (lego plots with dotted lines).

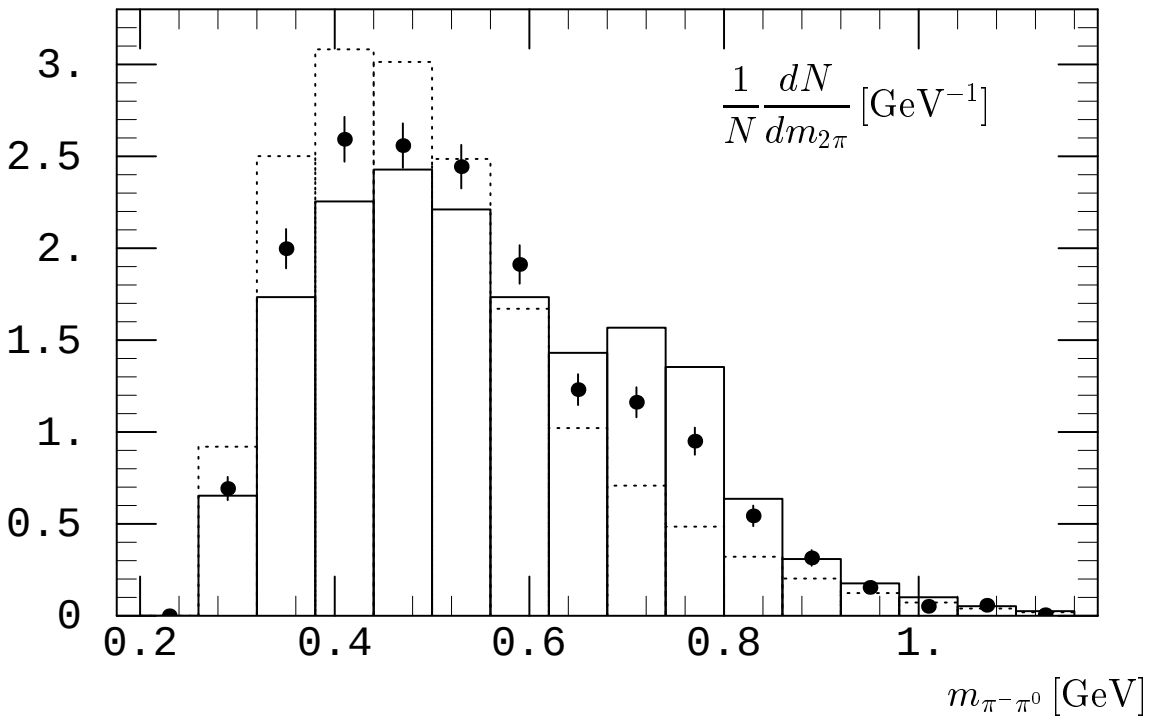
(a) $\pi^+\pi^-$



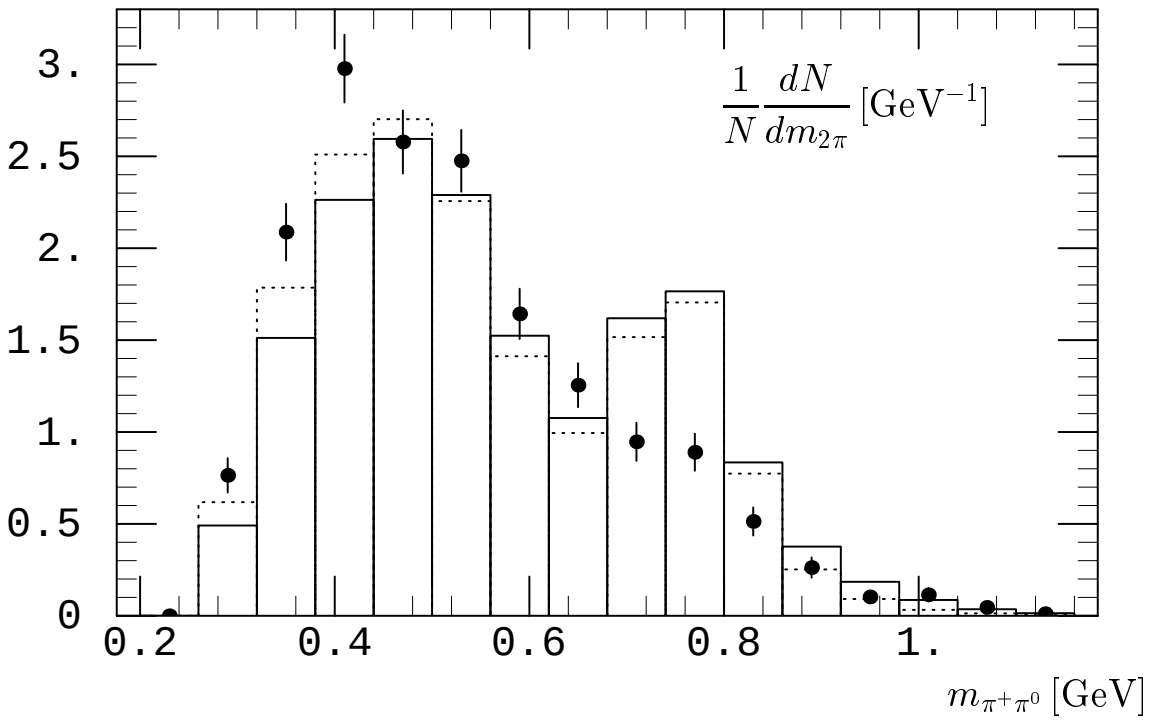
(b) $\pi^{\pm}\pi^{0}$
(sum of (c) and (d))



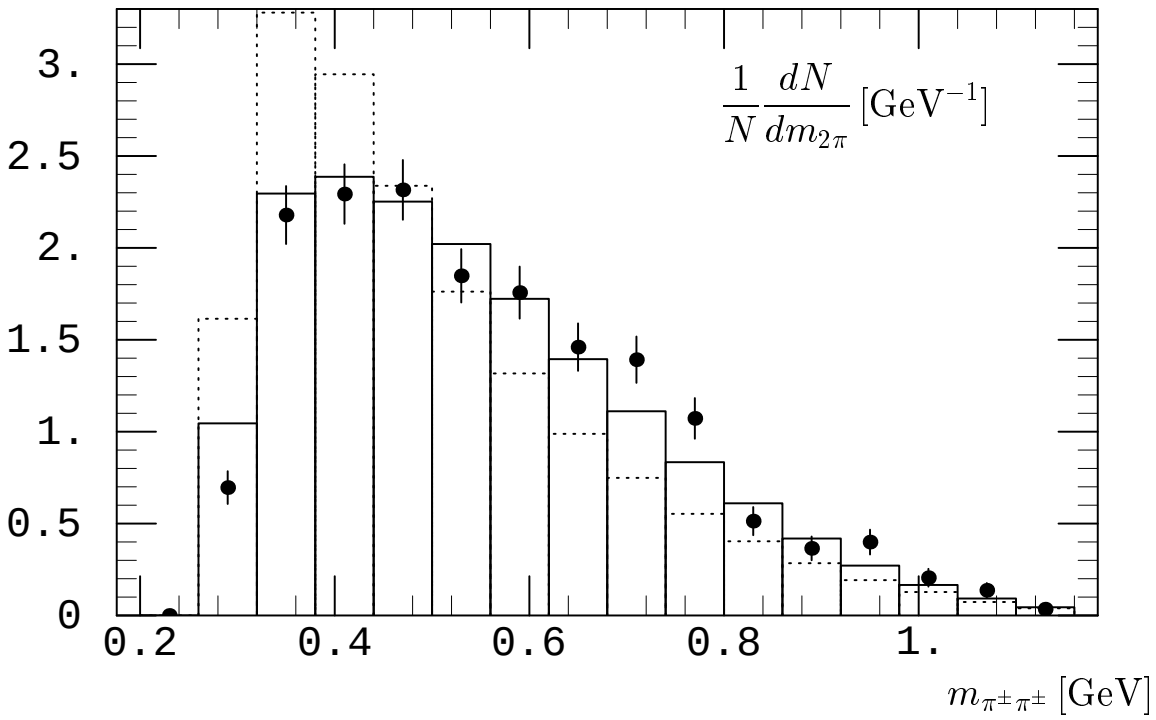
(c) $\pi^-\pi^0$


3.
2.5
2.
1.5
1.
0.5
0
0.2
0.4
0.6
0.8
1.
$\frac{1}{N}\frac{dN}{dm_{2\pi}}\,[\mathrm{GeV}^{-1}]$
$m_{\pi^-\pi^0}\,[\mathrm{GeV}]$

(d) $\pi^+\pi^0$


3.
2.5
2.
1.5
1.
0.5
0
0.2
0.4
0.6
0.8
1.
$\frac{1}{N}\frac{dN}{dm_{2\pi}}\,[\mathrm{GeV}^{-1}]$
$m_{\pi^+\pi^0}$ [GeV]

(e) $\pi^{\pm}\pi^{\pm}$


3.
2.5
2.
1.5
1.
0.5
0
0.2
0.4
0.6
0.8
1.
$\frac{1}{N}\frac{dN}{dm_{2\pi}}\,[\mathrm{GeV}^{-1}]$
$m_{\pi^{\pm}\pi^{\pm}}$ [GeV]