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28.01.85

Addendum to Proposal - 195

Tables and Figure Captions

Table I The number of each particles observed by (a) 4" shower calorimeter and (b) 6" calorimeter respectively. Those numbers are obtained by the simulation for the pbar-p collisions 10^6. Symmetry implies that the two shower counters are located symmetrycally inside the Roman pots, while asymmetry case one is in the Roman pot and the other near the beam pipe at the opposite direction of the one chamber.

Fig. 1 (a) The invariant mass distribution of the gamma rays observed by the 4" silicon shower counters in the Roman pots installed 15 m away from the vertex.

(b) The same invariant mass distribution but observed by 6" shower calorimeters located at 10m away from the vertex.

Fig. 2 (a) The angular distribution of the photons versus the photon energies E_γ for $\sqrt{s}$= 900 GeV ,(b) for $\sqrt{s}$ = 200 GeV, and(c)for $\sqrt{s}$=540GeV. The angular range observed by the detectors(A: inside Roman pot and B: outside beam pipe but just on the beam pipe) is indicated by the box.

Fig. 3 (a) The photon distribution in the plane: Feynman variable X_F and the transverse momentum P_T for the collision energies (a) $\sqrt{s}$ = 900 GeV , (b) $\sqrt{s}$ = 200 GeV and (c) for $\sqrt{s}$ = 540 GeV respectively. (The horizontal axis of Fig. 3(c) is not linear but logarithmic.)

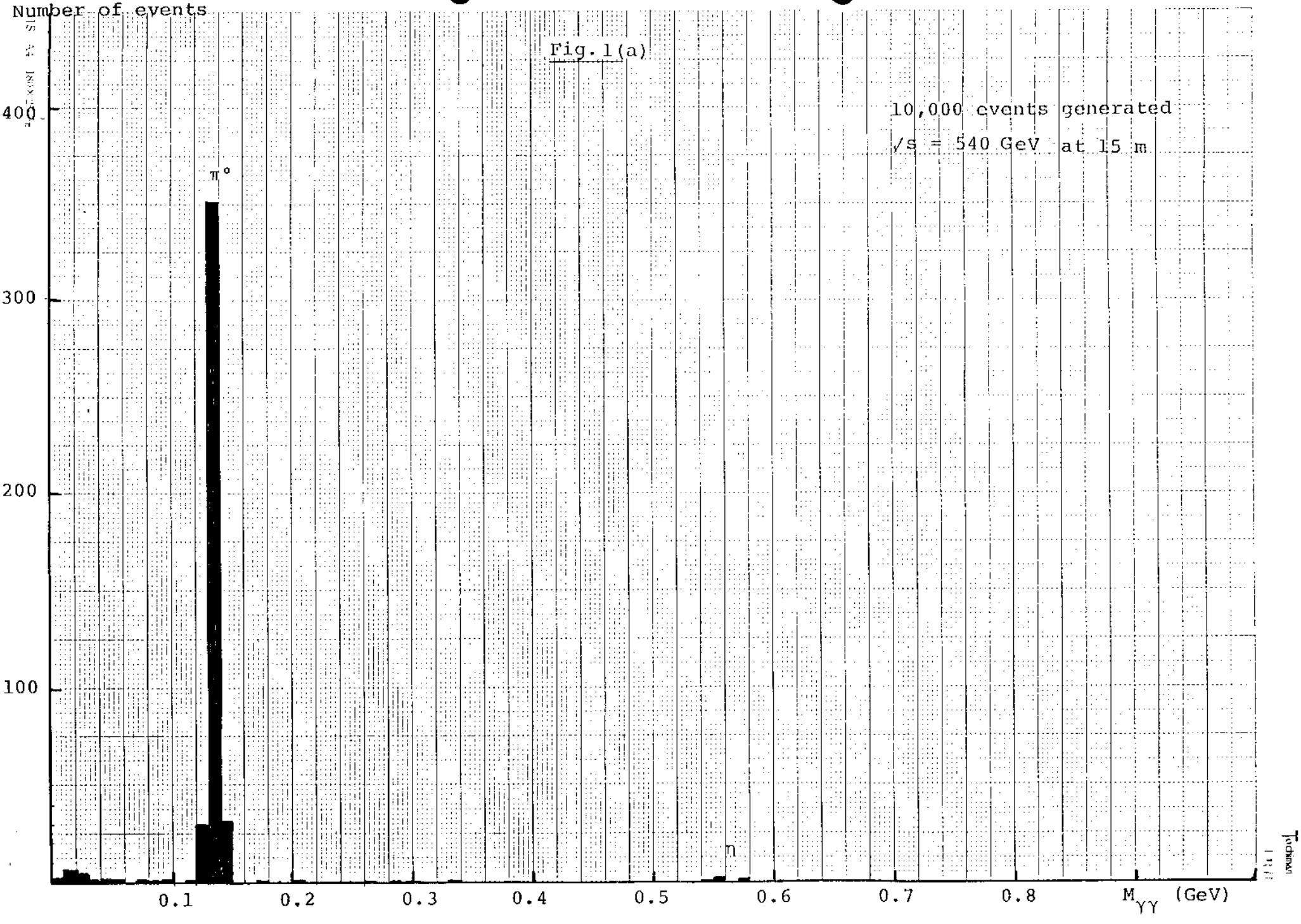
Table I

(a) 4" shower counter

$\sqrt{s}$	γ	π°	K°_s	ω	η	ϕ	chamber configuration
900	3.5×10^5	1.2×10^5	170	60	1830	<2	symmetry
200	7.1×10^4	2.1×10^3	<10	<10	<10	<10	
630	2.7×10^5	6.1×10^4	40	<10	800	<10	
900	2.8×10^5	4.1×10^4	~10	<10	1030		asymmetry
200	6.3×10^4	1.4×10^3	<10	<10	<10		
630	2.2×10^4	2.1×10^4	<10	<10	<10		

(b) 6" shower counter

$\sqrt{s}$	γ	π°	K°_s	ω	η	ϕ	distance (m)	configuration
	3.7×10^5	1.4×10^5	180	40	2300	<2	22	symmetry
630	4.9×10^5	3.4×10^5	2200	1800	1.3×10^4	30	10	
	6.6×10^5	4.3×10^5	7700	1500	2.2×10^4	50	6.4	
	3.2×10^5	5.7×10^4	10	10	1400		22	asymmetry
630	4.4×10^5	1.4×10^5	170	100	5300		10	
	5.7×10^5	1.9×10^5	410	220	1.4×10^4		6.4	


Number of events
Fig.1(a)
10,000 events generated
√s = 540 GeV at 15 m
400
300
200
100
π°
η
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
$M_{\gamma\gamma}$ (GeV)

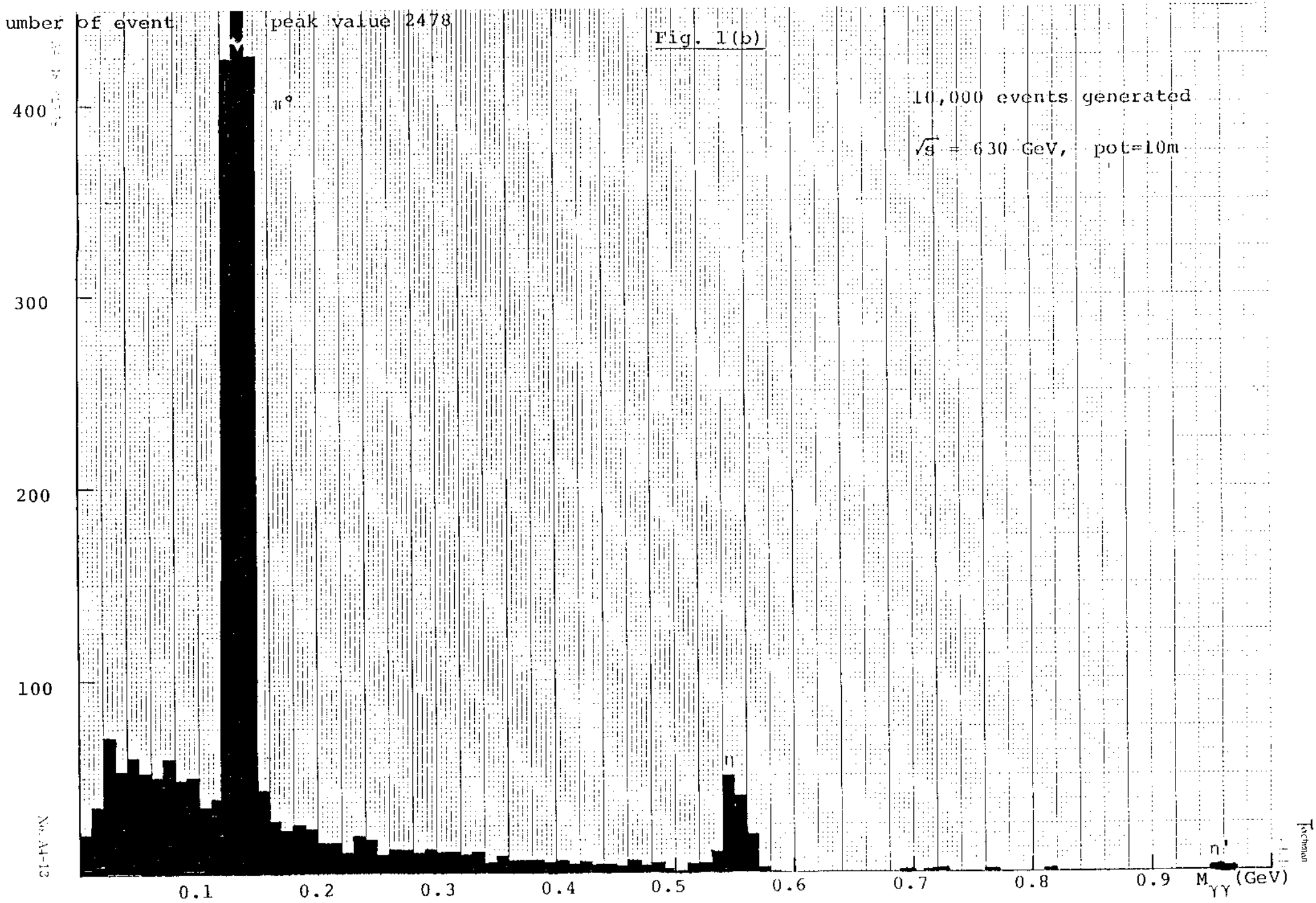

umber of event
peak value 2478
Fig. 1(b)
10,000 events generated
$\sqrt{s}$ = 630 GeV, pot=10m
400
300
200
100
π^0
η
η'
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
$M_{\gamma\gamma}$ (GeV)

Fig. 2(a)
$\sqrt{s}$ = 900 GeV

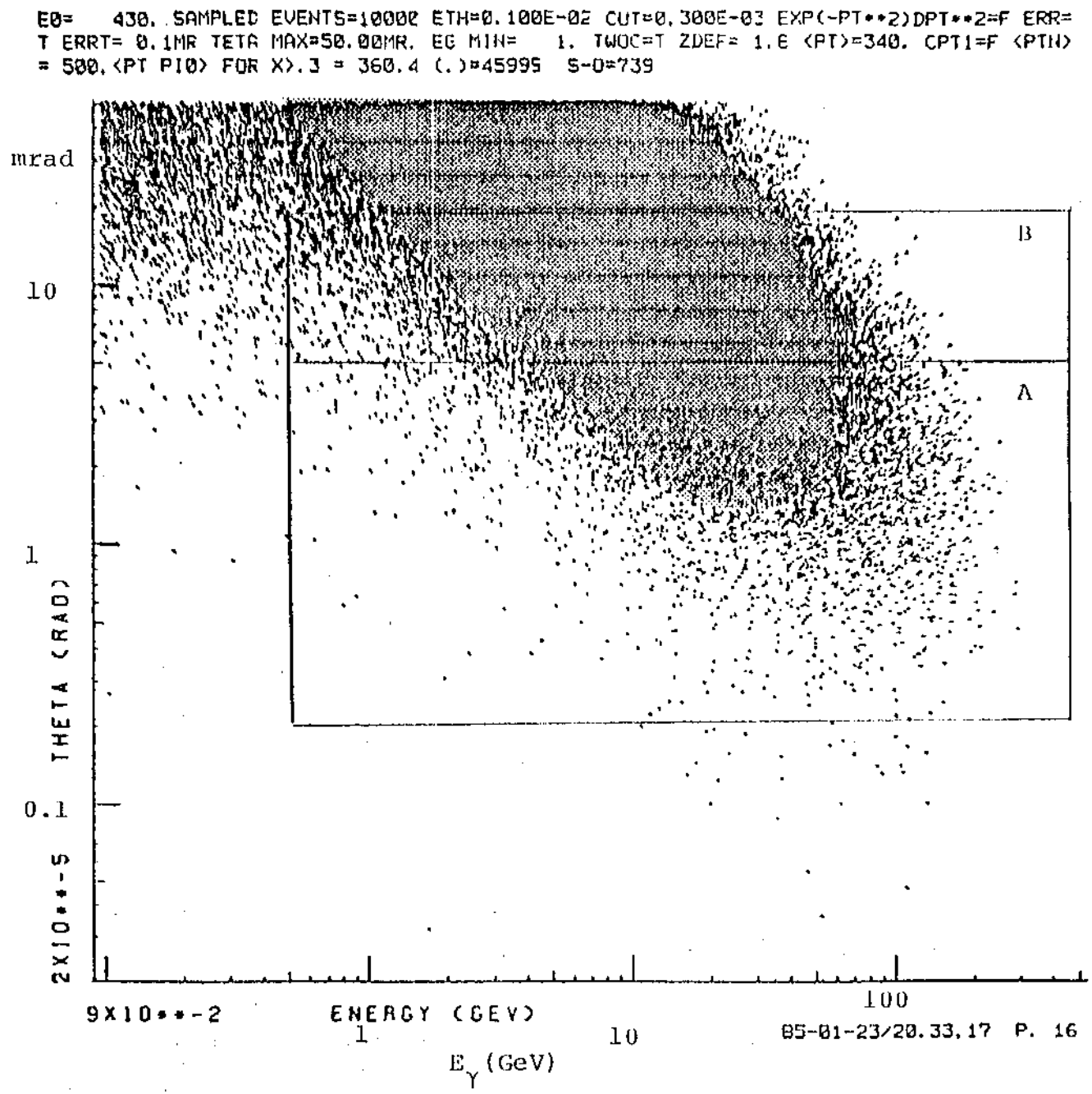


Fig. 2(b)

$\sqrt{s}$ = 200 GeV

E0= 21. SAMPLED EVENTS=15000 ETH=0.100E-02 CUT=0.300E-03 EXP(-PT**2)DPT**2=F ERR=
T ERRT= 0.1MR TETA MAX=50.00MR. EG MIN= 1. TWOC=T ZDEF= 1.8 <PT>=340. CPT1=F <PTN>
= 500.<PT P10> FOR X>.3 = 379.7 (.)=23731

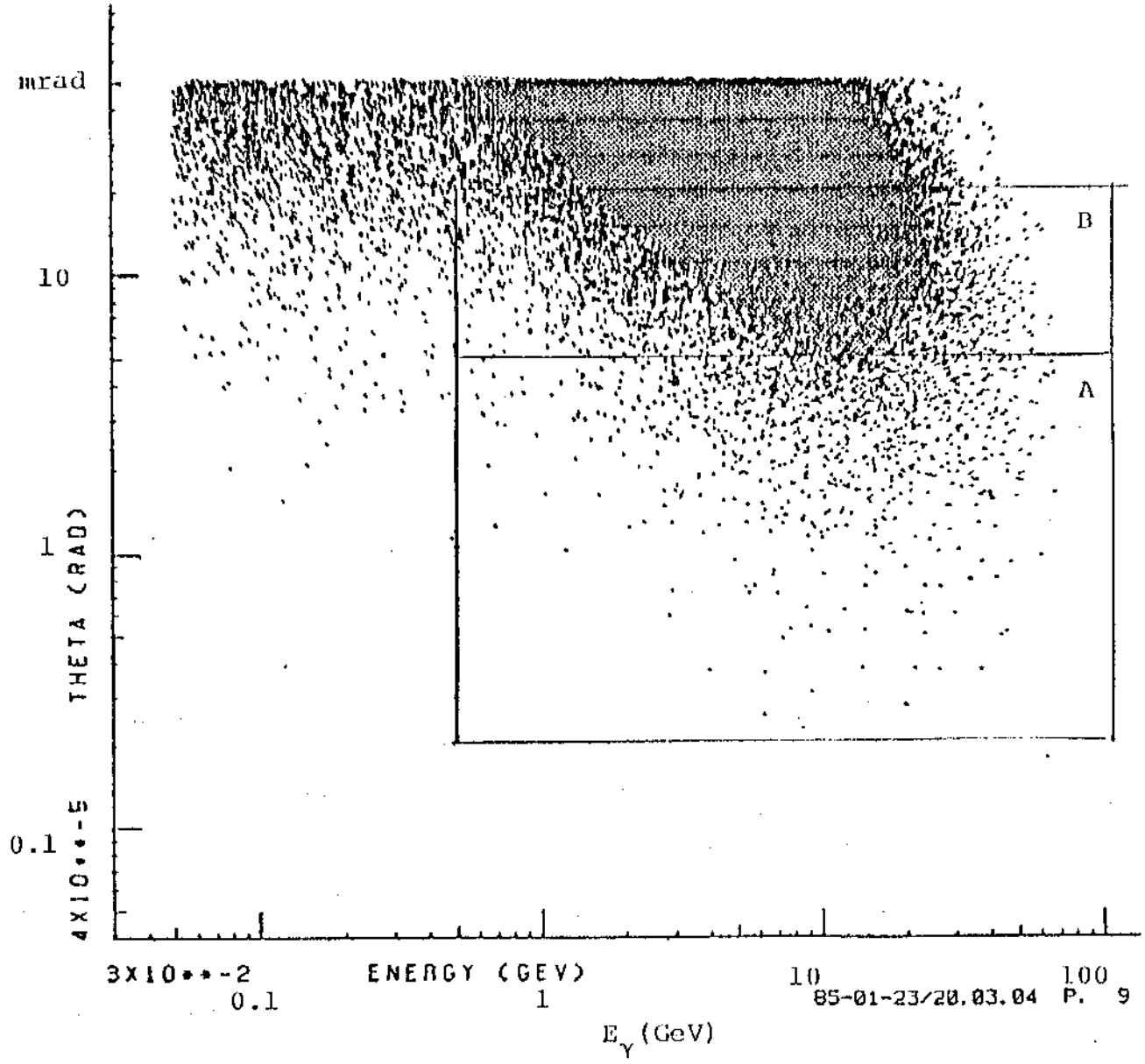


Fig. 2(c)

$\sqrt{s}$ = 540 GeV

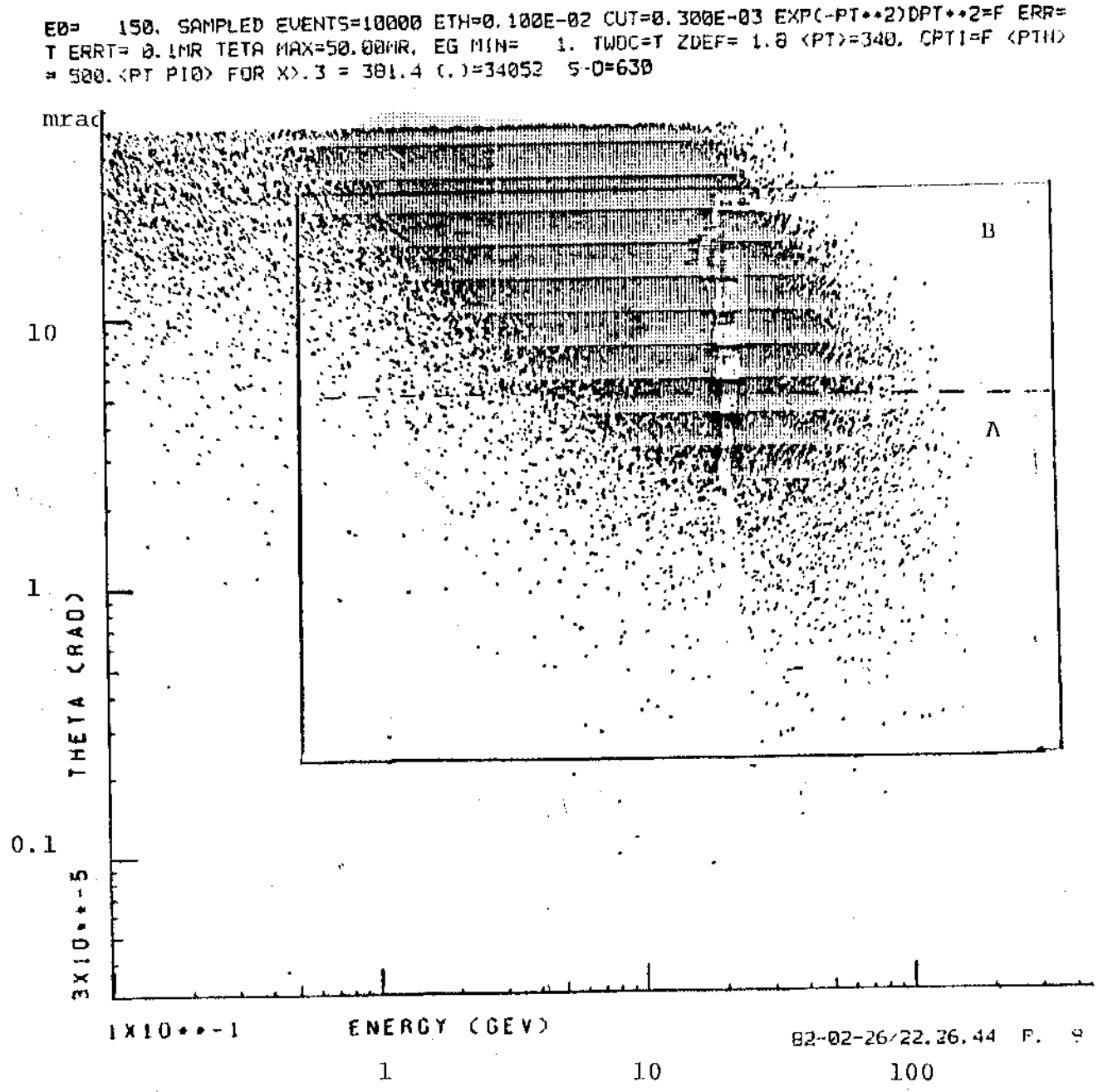


Fig. 3(a)

$\sqrt{s}$ = 900 GeV

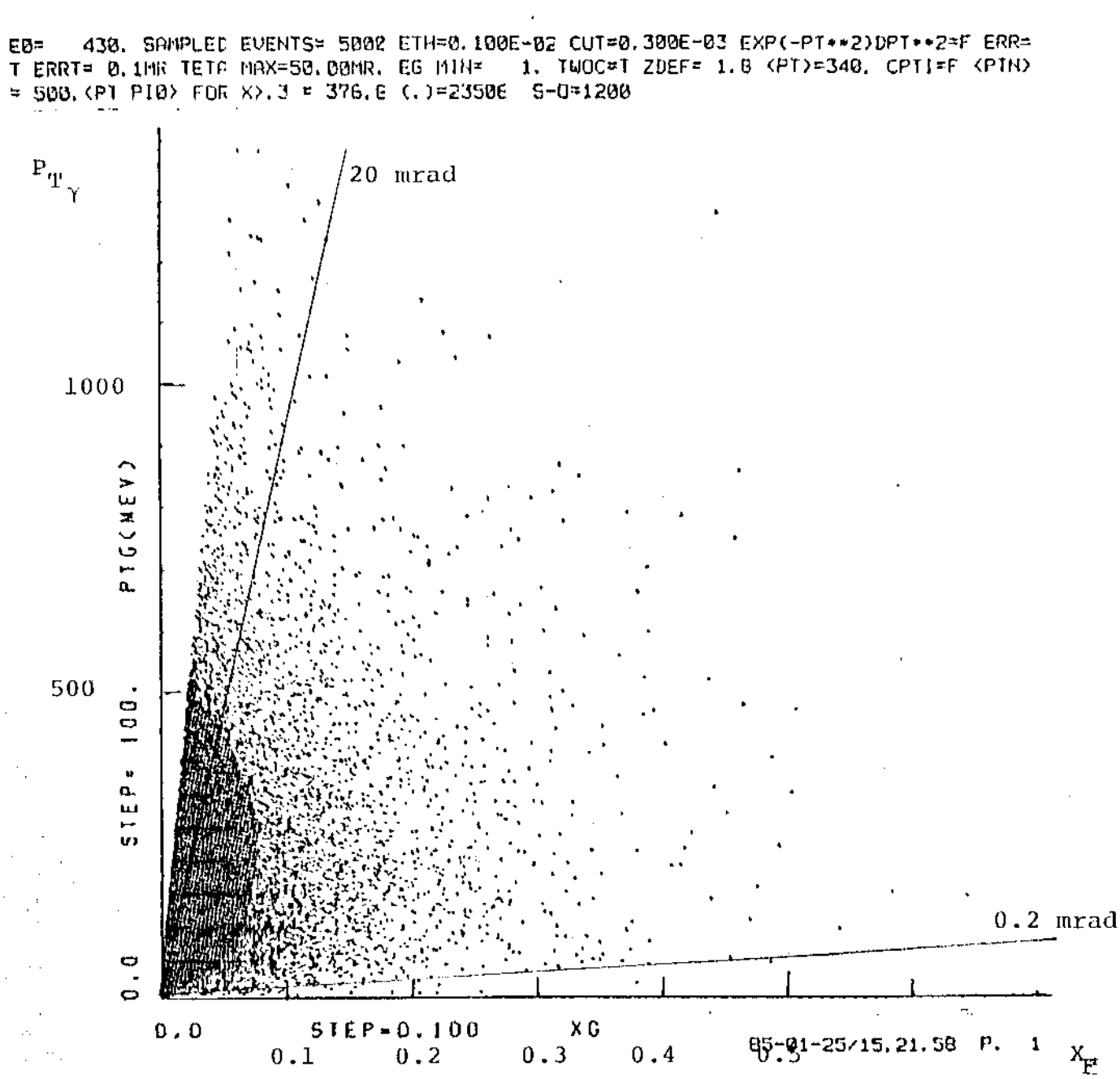


Fig. 3(b)

$\sqrt{s}$ = 200 GeV

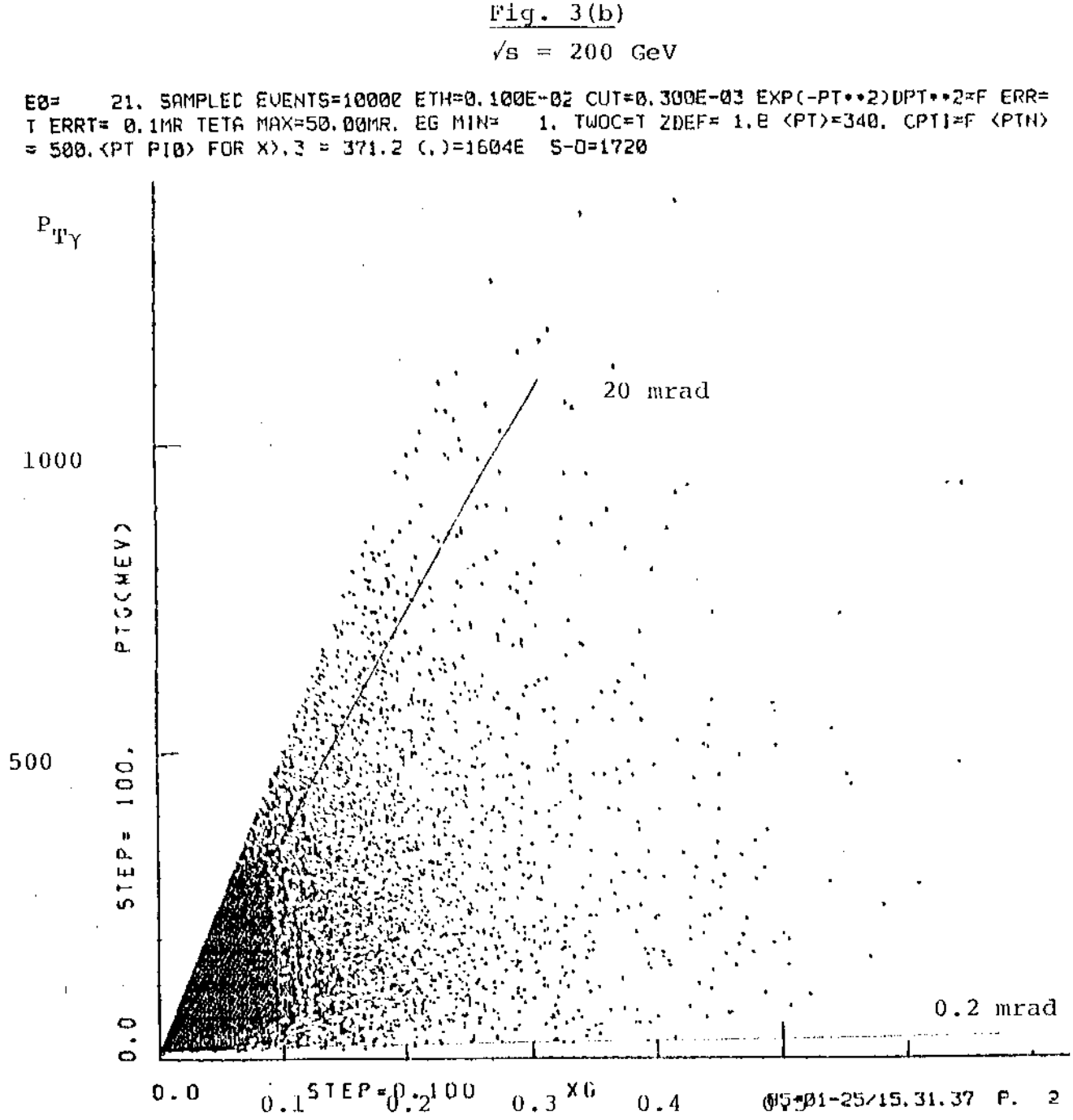
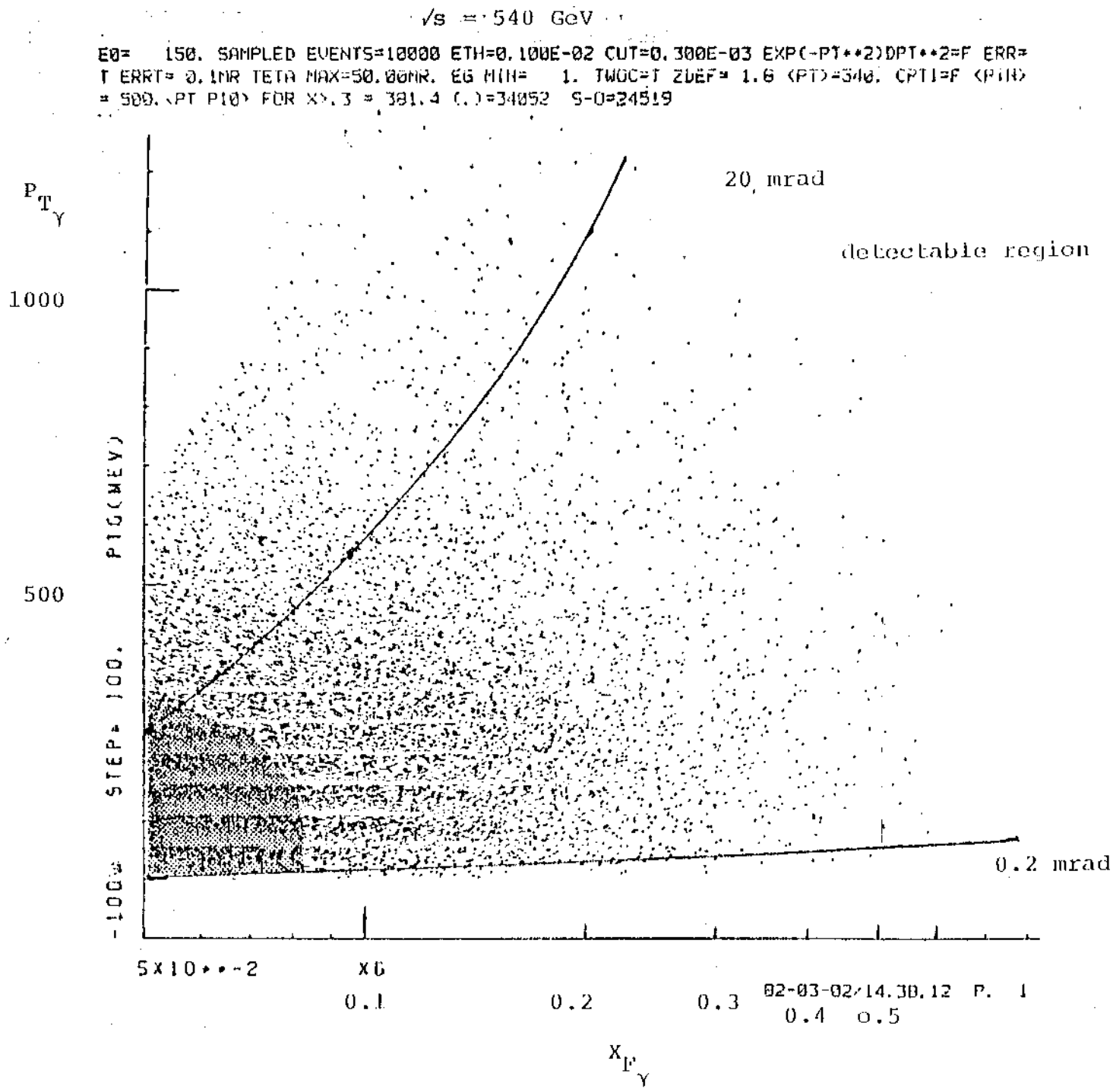


Fig. 3(c)


√s = 540 GeV
E0= 150. SAMPLED EVENTS=10000 ETH=0.100E-02 CUT=0.300E-03 EXP(-PT**2)DPT**2=F ERR=
T ERRT= 0.1MR TETA MAX=50.00MR. EG MIN= 1. TWOC=T ZDEF= 1.6 <PT>=340. CPTI=F <PTIN>
= 500. <PT P10> FOR X>.3 = 381.4 ( )=34052 S-O=24519
P_{T_γ}
1000
500
-100
STEP= 100.
PTG(MEV)
20 mrad
detectable region
0.2 mrad
5X10**-2
X6
0.1
0.2
0.3
0.4
0.5
02-03-02/14.38.12 P. 1
X_{F_γ}