

## Two photon hadronic backgrounds

Jeff Gronberg – LLNL  
June 4th, 2001

## Comparison of TESLA and NLC-H for Table 7

TESLA,  $p_t > 2.2\text{GeV}$

	Events per BX [ $\times 10^{-3}$ ]	multiplicity	charged multiplicity	total energy per event
direct	5.3	15.18	8.53	48(0.25)
single resolved	4.0	30.52	15.67	80(0.32)
double resolved	11.2	44.66	22.18	132(1.5)

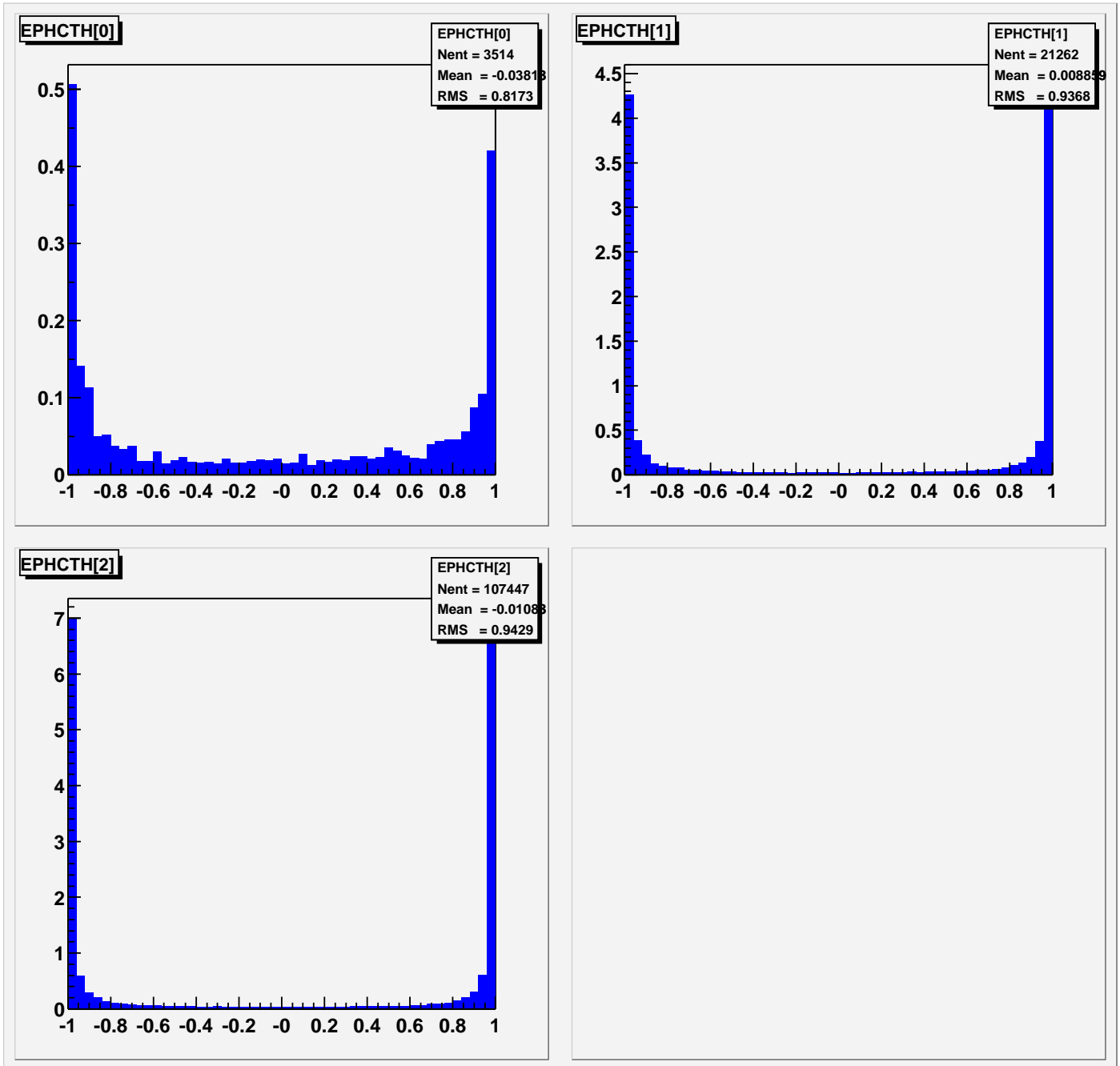
NLC-H,  $p_t > 2.2\text{GeV}$  (partons)

	Events per BX [ $\times 10^{-3}$ ]	multiplicity	charged multiplicity	total energy per event
direct	0.79	7.2	3.4	15.6(0.01)
single resolved	0.84	23.2	11.46	37.7(0.03)
double resolved	0.64	32.9	15.9	50.5(0.03)

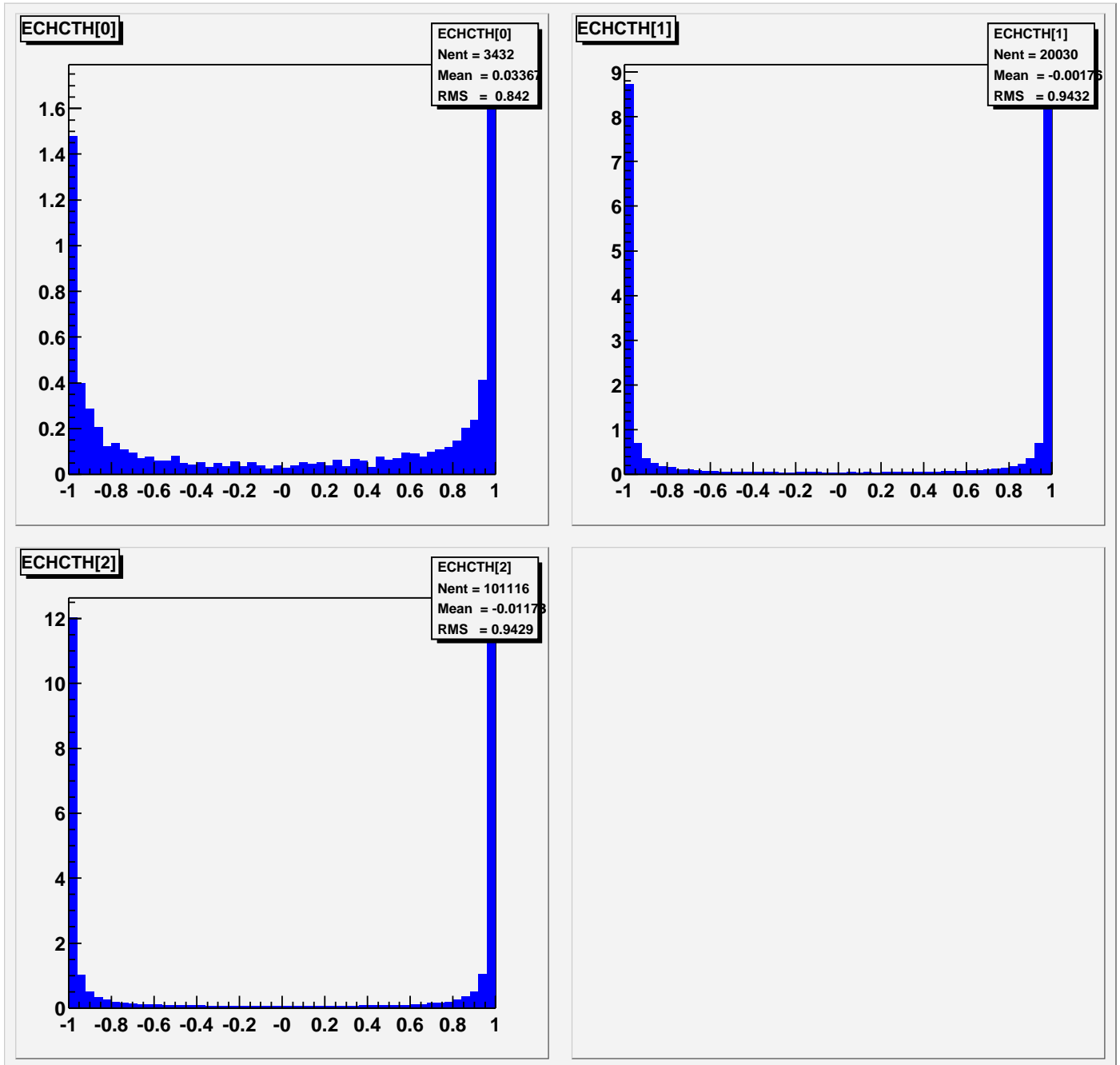
NLC-H, all events

	Events per BX [ $\times 10^{-3}$ ]	multiplicity	charged multiplicity	total energy per event
direct	3.6	6.5	3.2	10.1(0.04)
single resolved	6.9	20.3	9.8	34.5(0.24)
double resolved	23.	30.1	14.6	48.8(1.15)

# Neutral energy for NLC-H events

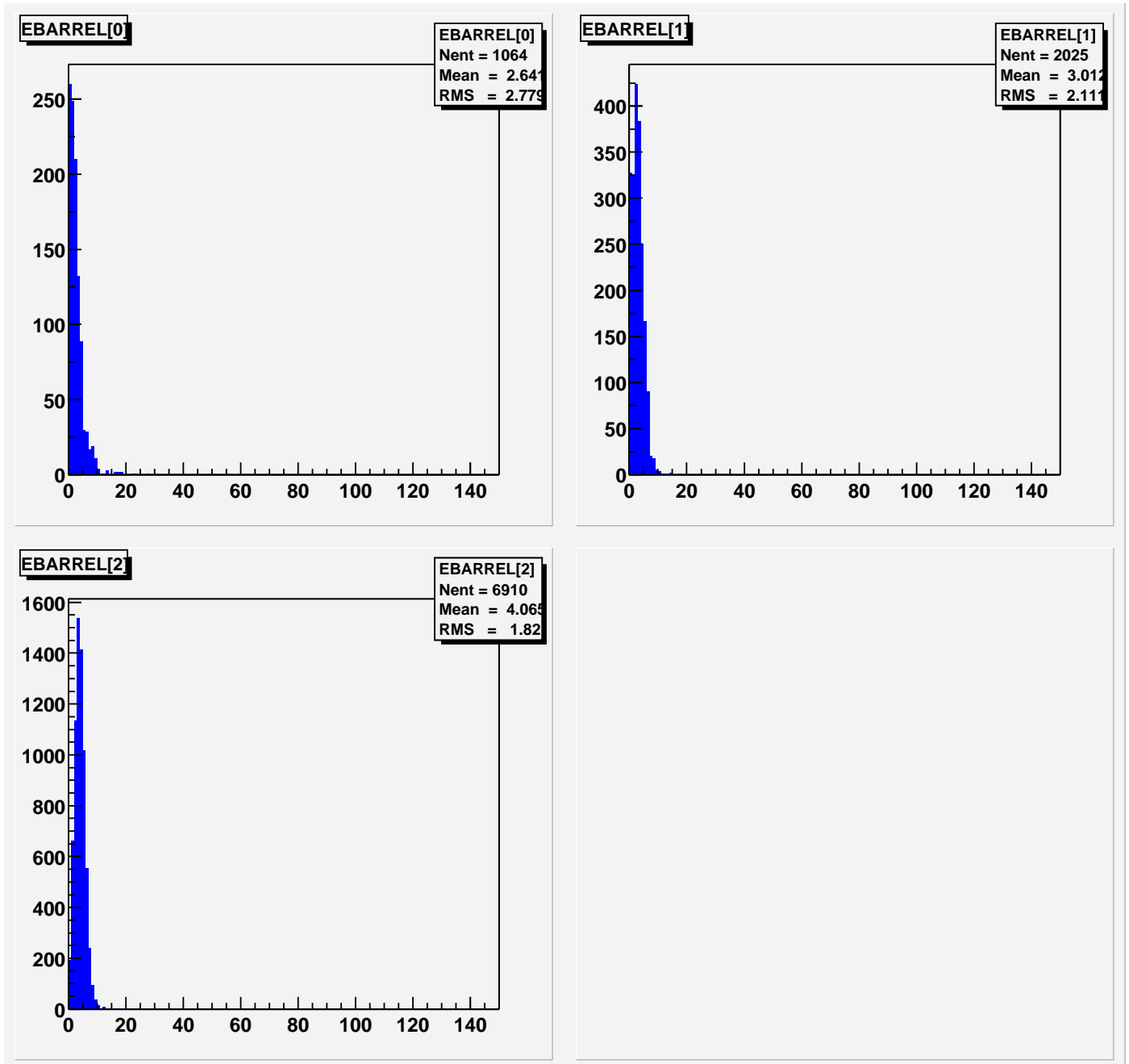


# Charged energy for NLC-H events



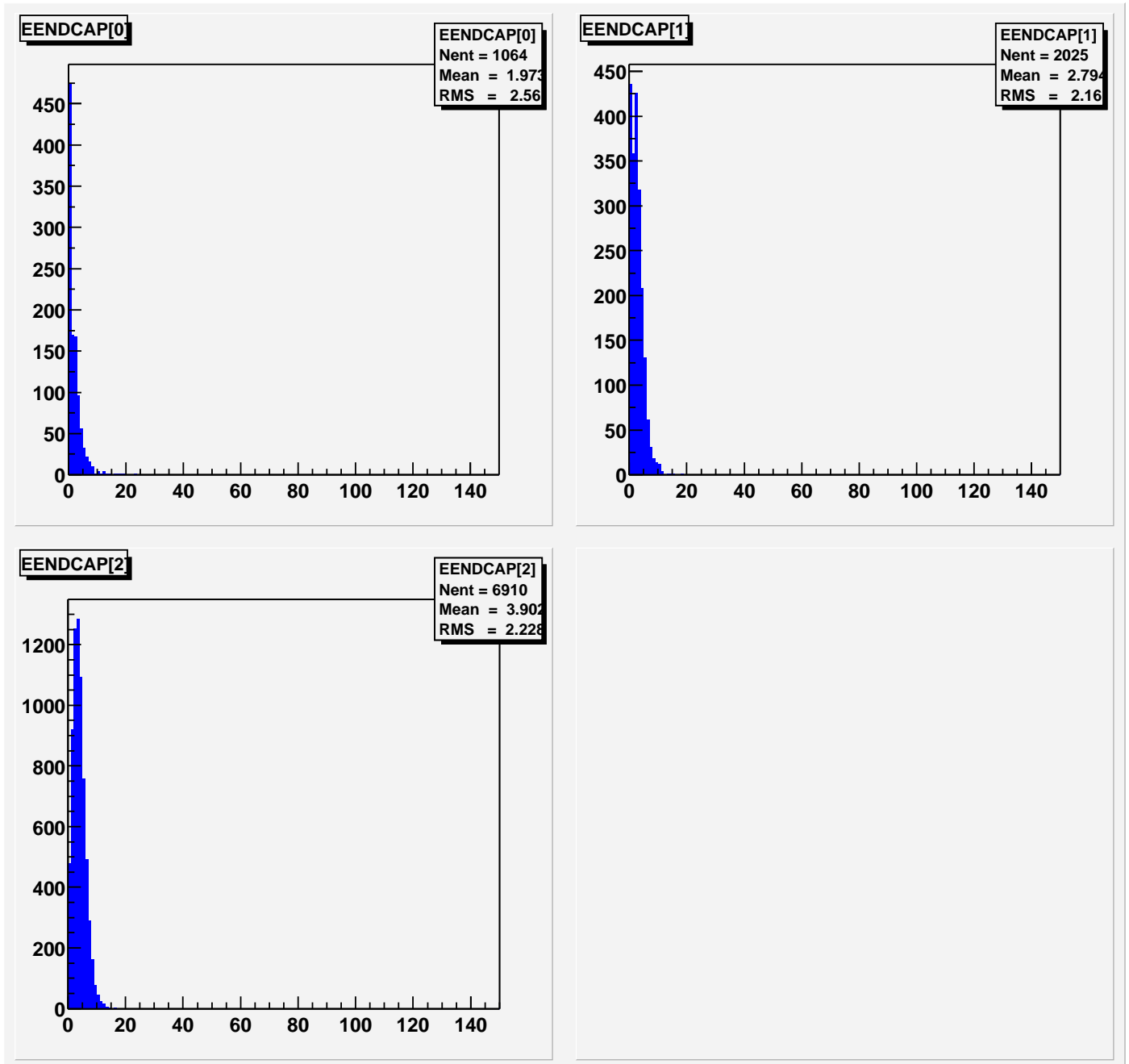
# Total barrel energy for NLC-H events

$$|\cos(\theta)| < .7$$



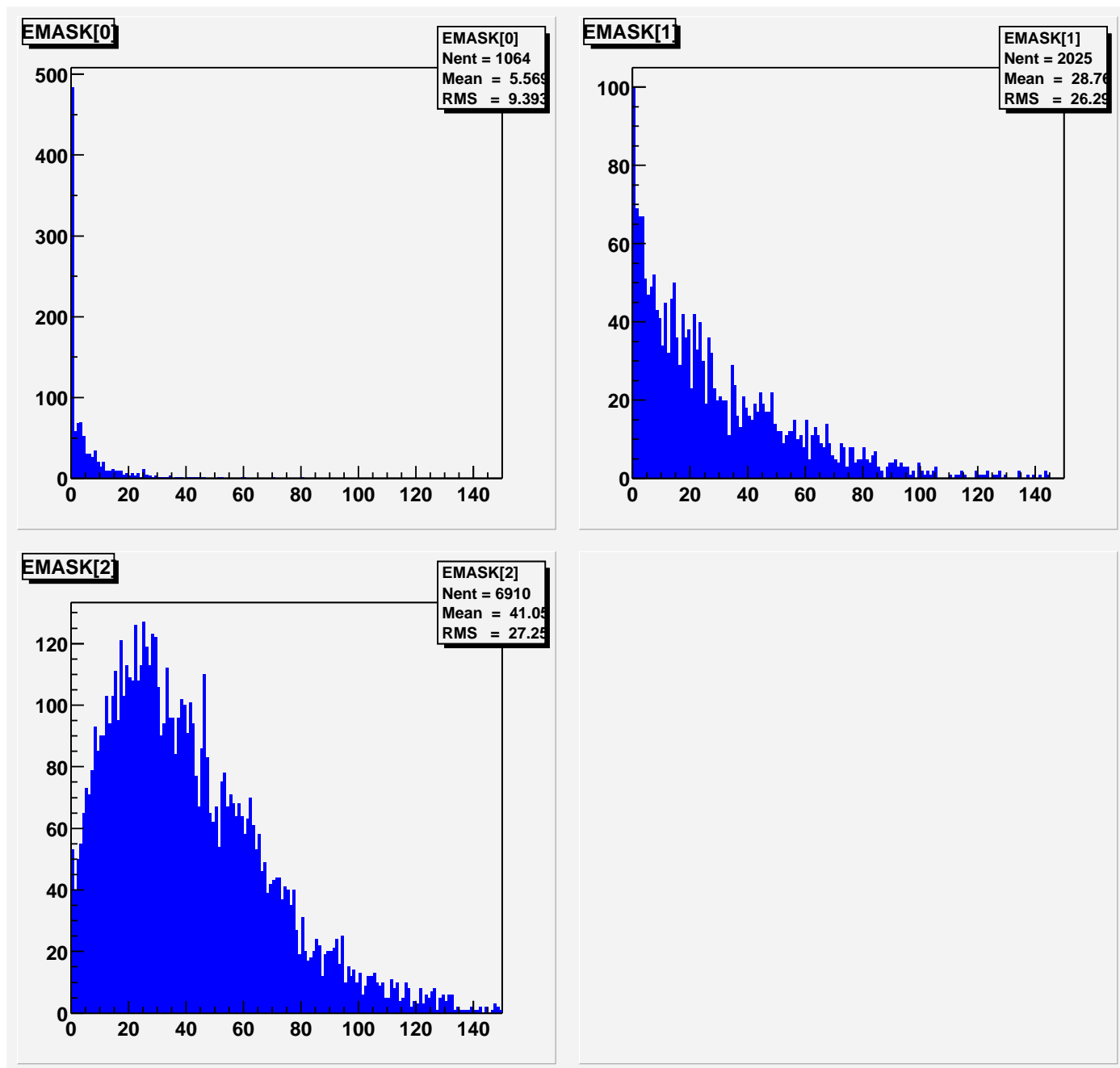
# Total endcap energy for NLC-H events

$$.7 < |\cos(\theta)| < .9$$

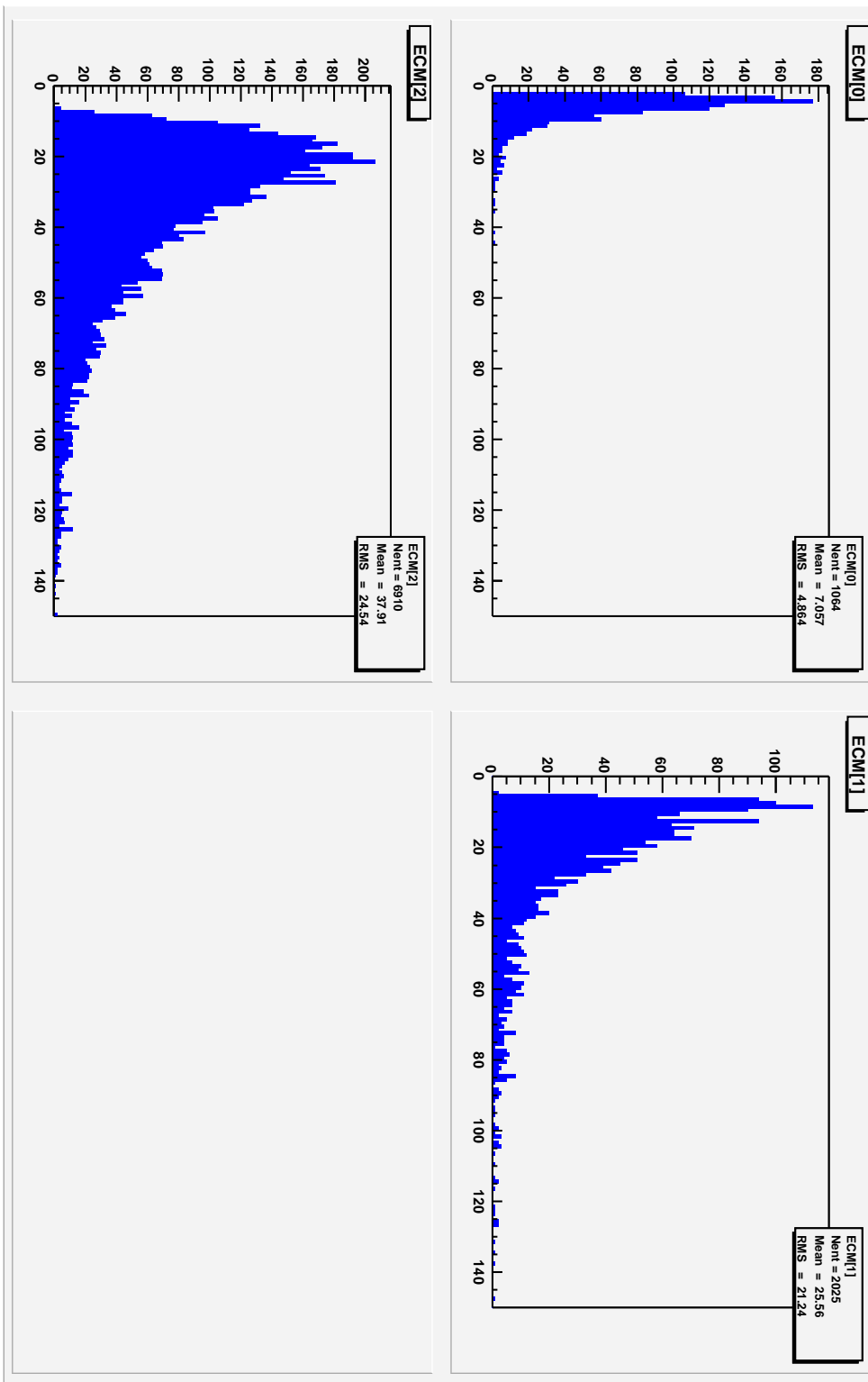


## Total mask energy for NLC-H events

$$|\cos(\theta)| > .9$$

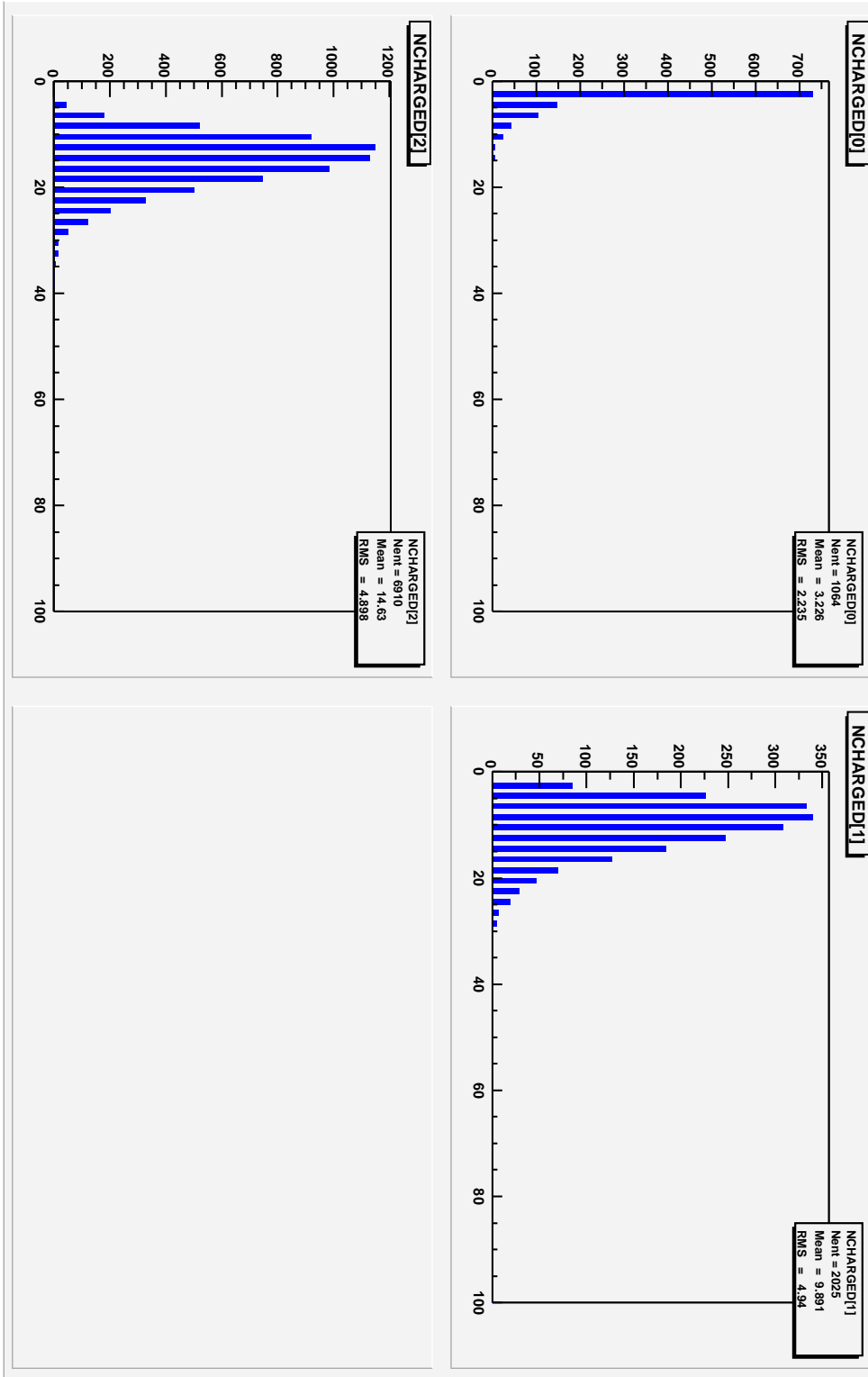


$E_{cm}$  for NLC-H events,  $p_t > 2.2\text{GeV}$

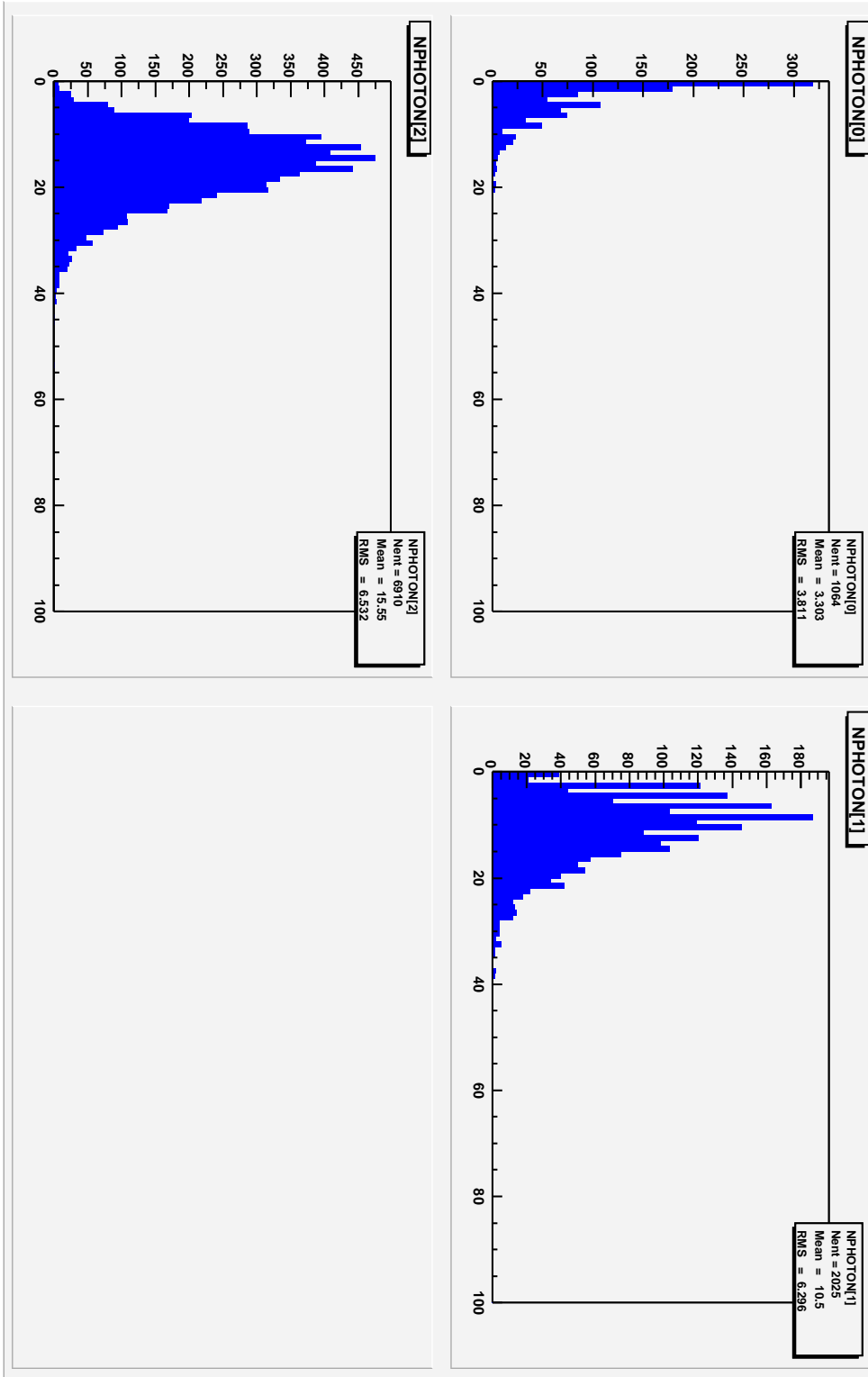




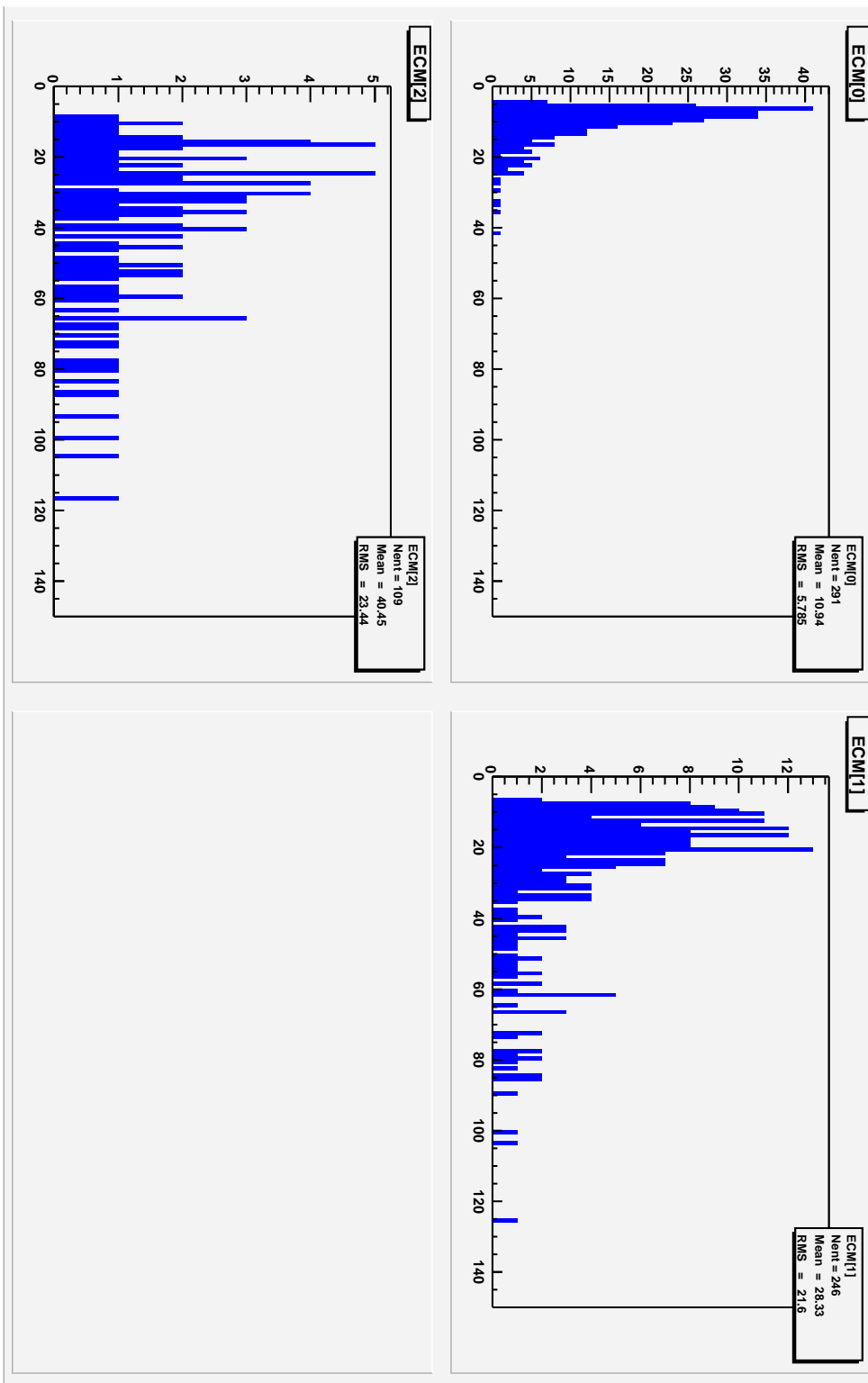
# N charged for NLC-H events, $p_t > 2.2\text{GeV}$



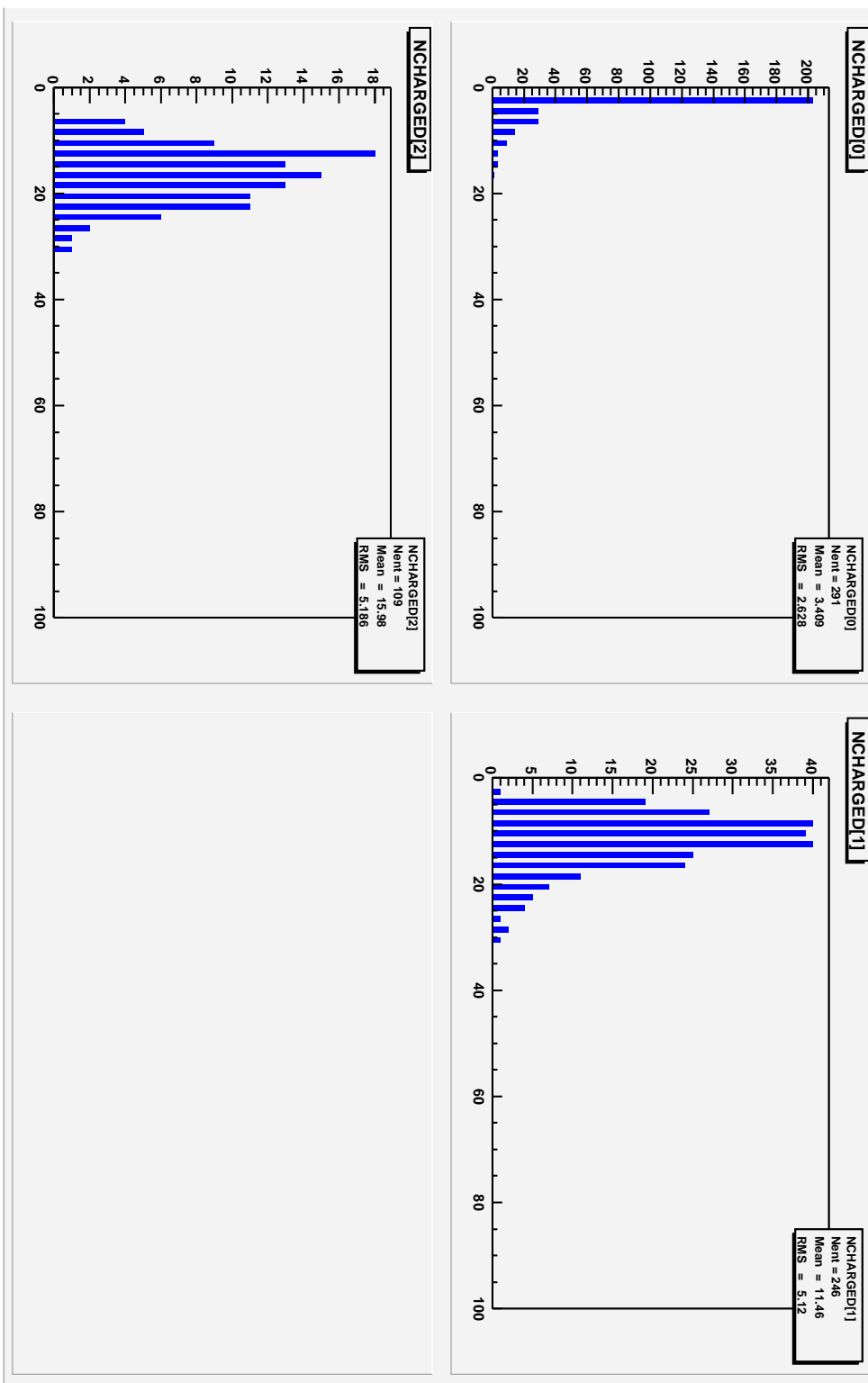
# N neutral for NLC-H events, $p_t > 2.2\text{GeV}$



# $E_{cm}$ for NLC-H events



# N charged for NLC-H events



# N neutral for NLC-H events

