



CM-P00044932

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MEMORANDUM

To: L. Foa, SPSC Members

From: UA7

Subject: Running in 1986

- UA7 Status

In 1985 the UA7 experiment had a succesfull run using three Si-W calorimeters placed:

- one calorimeter at 23 meters covering 2 to 4 mrad
- two calorimeters at 13 meters covering 10 to 20 mrad above and below the SPS beam pipe.

The data were taken parasitically during two $\bar{p}p$ weeks using the roman pots numbered 5 to 12. A sample of 700,000 triggers, including diffractive type, has been recorded. The analysis is in good progress. Using the calibration data taken at KEK at 4.5 Gev , the π^0 peak obtained with two photons in the same and in two different calorimeters are shown in figures 1 and 2. The preliminary x distributions for the two different angular regions are also shown in fig.3.

- Running in 1986.

Figure 4 shows the 1985 acceptance in the Pt,Pl plane. Using the new roman pot installed at 14 meters from the intersecting point, the dead region between 4 and 10 mrad could be covered. We would then cover the full angular region between 2 and 20 mrad, allowing for cleaner double differential distributions in (y, Pt) with small corrections , and making evidence or not for scaling violation.

We would like to ask for installing one calorimeter in pot n^o5 (as before covering 2 to 4 mrad), and two other calorimeters in the new installed pots at 14 meters covering 3 to 10 mrad, above and below the beam pipe. To get reasonable statistics , the running time should be the same as in 1986, about 2 weeks of $\bar{p}p$ time.

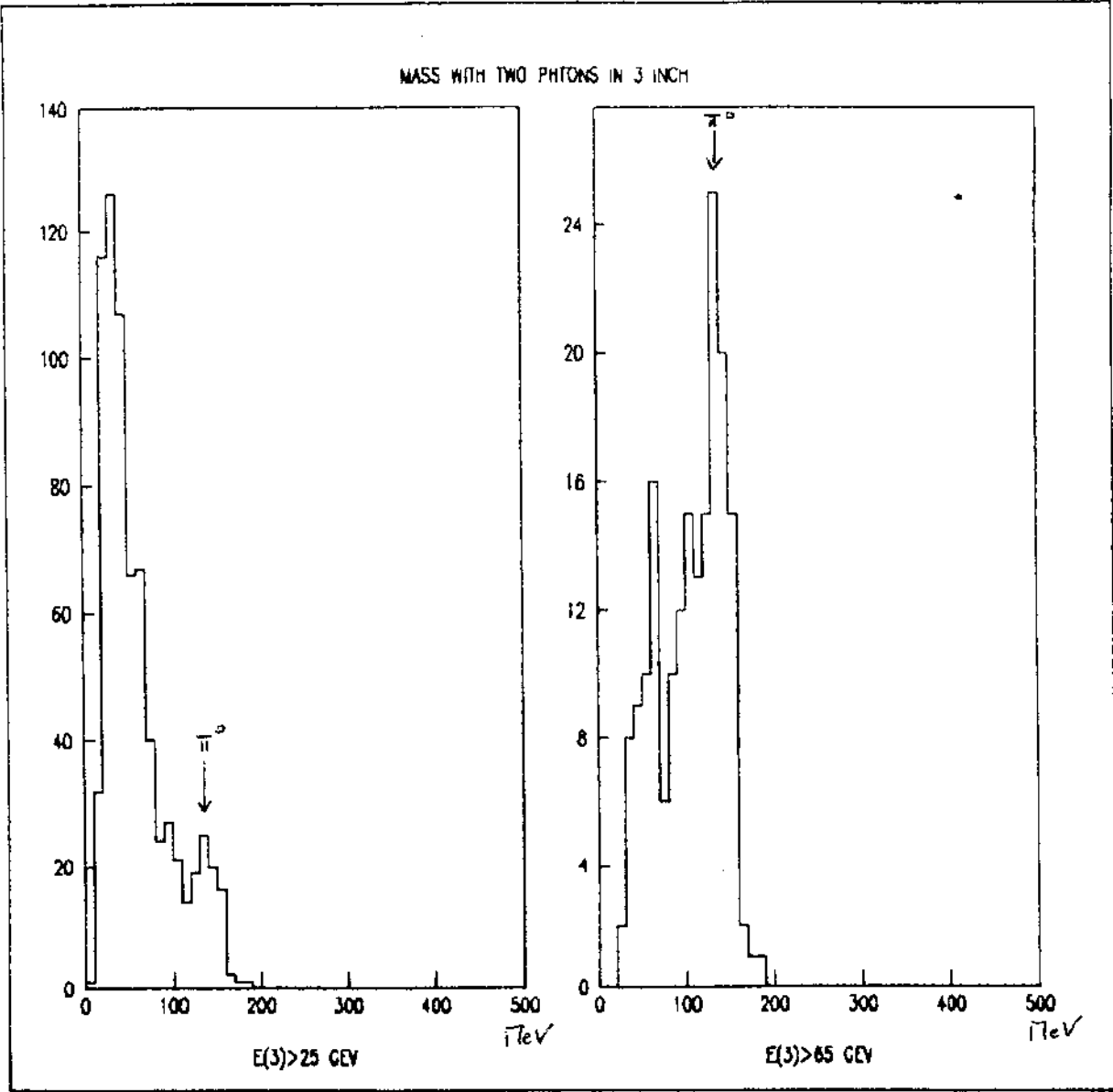


Figure 1

MASS WITH ONE PHOTON IN 3 INCH AND ONE PHOTON IN 4 INCH

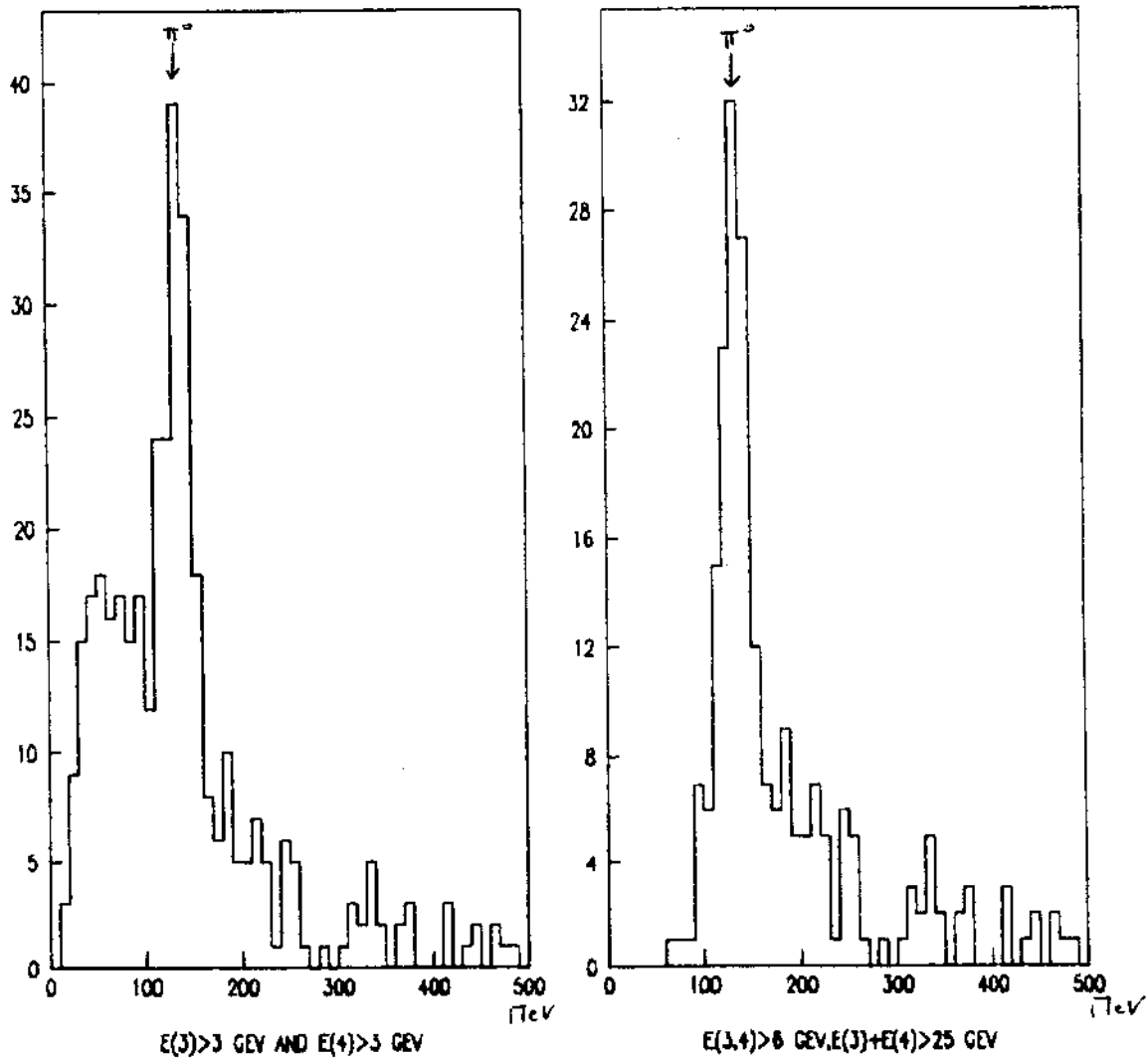


Figure 2

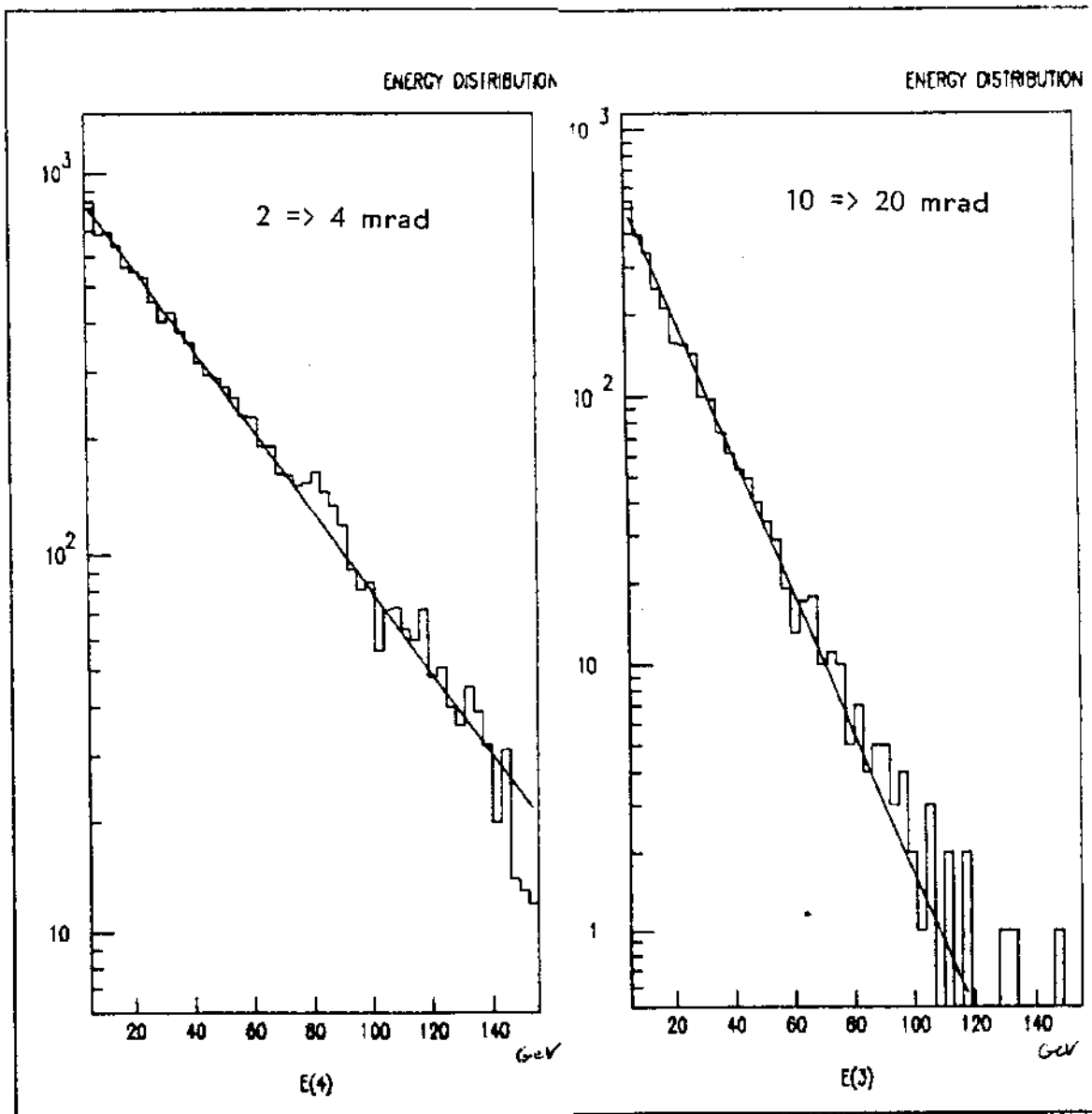


Figure 3

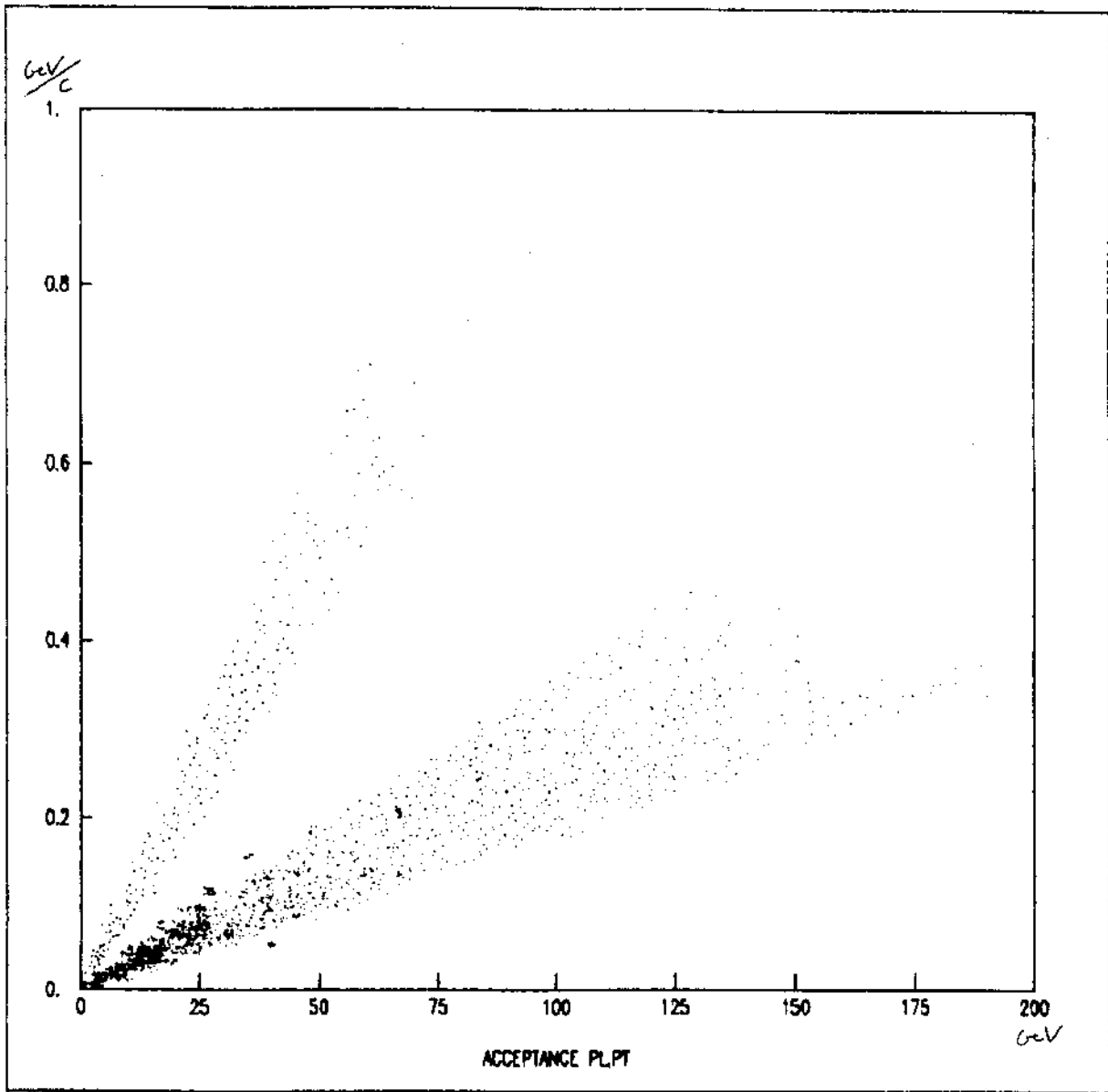


Figure 4