

L. Scarfe /ISR

CERN LIBRARIES, GENEVA

ISR-TH/EK/cb



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CM-P00065922

ISR PERFORMANCE

Run 146, 26 GeV/c, Ring 1

Betatron Amplitude vs. current

Results : A proper experiment on betatron amplitude was only done at about 7 A. There is no visible blow-up. The stackwidth is a linear function of the current up to 9 A, indicating that there is no blow-up up to this current level.

Fig. 1 shows the two scraper scans at about 7 A. The beam radius, defined as twice the rms amplitude, is about 7 mm at the scraper position, this corresponds to an emittance $E_{II} = 2.75\pi \cdot 10^{-6}$ rad m.

Fig. 2 shows the variation of the widths w of the scraper scan with current. It is possible to draw a straight line through the points indicating that there is no blow-up in the current range up to 9 A.

E. Keil

Distribution

ISR Group Leaders
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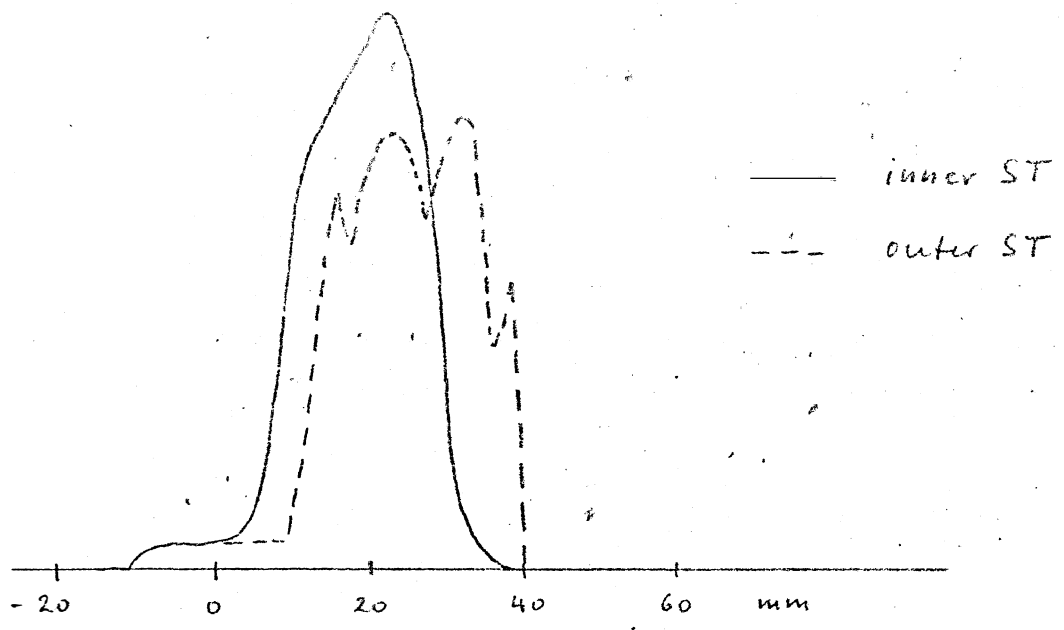


Fig. 1

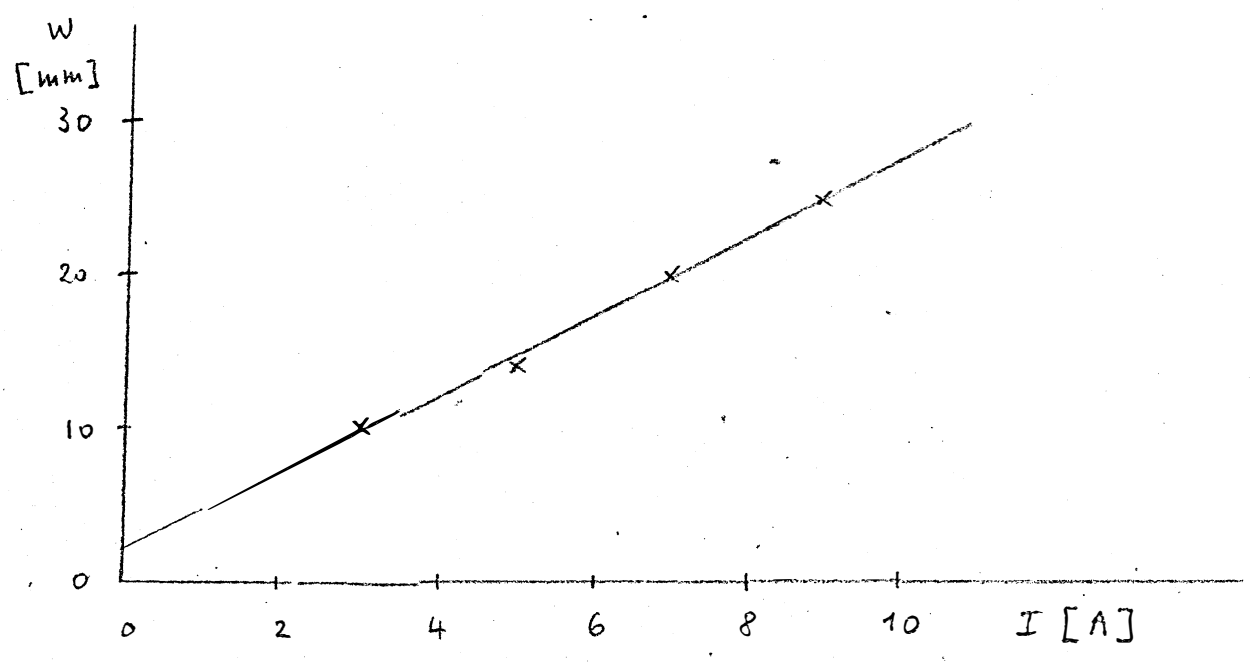


Fig. 2