

FIRST DIGITIZATIONS OF 12' ANL BUBBLE CHAMBER PICTURES ON CERN LSD2

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Recently a certain number of large bubble chambers have been started into production ; in the near future a few more (in particular BEBC) will be operational.

Thus we decided to study the possibilities of digitizing dark field frames on CERN LSD's. Both the AGC1 and the AGC2 were unable to discriminate and normalize pulses generated by transparent tracks : a complete new design was so compulsory.

A first test circuit has been already achieved and mounted on LSD2 to digitize frames from the 12' ANL bubble chamber.

An old AGC2 circuit has been modified in order to allow a ratio I/F larger than 1 (ref. 1). It should be noted that this test has been introduced in the general planning foreseen for the tuning of the LSD2; all other parameters of the machine were therefore the same used for production of experiment 42 with 2 meter chamber film (slit  $1000 \times 40 \mu\text{m}^2$ , integrator, etc.). Even if limited, the results so far obtained, have been very encouraging (figs.1, 2).

In a near future a new AGC circuit will be designed, especially for dark field film; we shall besides try to optimize the optical, mechanical and electronic parameters of the machine as a function of the tracks thickness and radius of curvature.

REFERENCES

- 1) E. Rosso, Hardware Improvements on the Two CERN LSD Systems, paper submitted to this Conference.

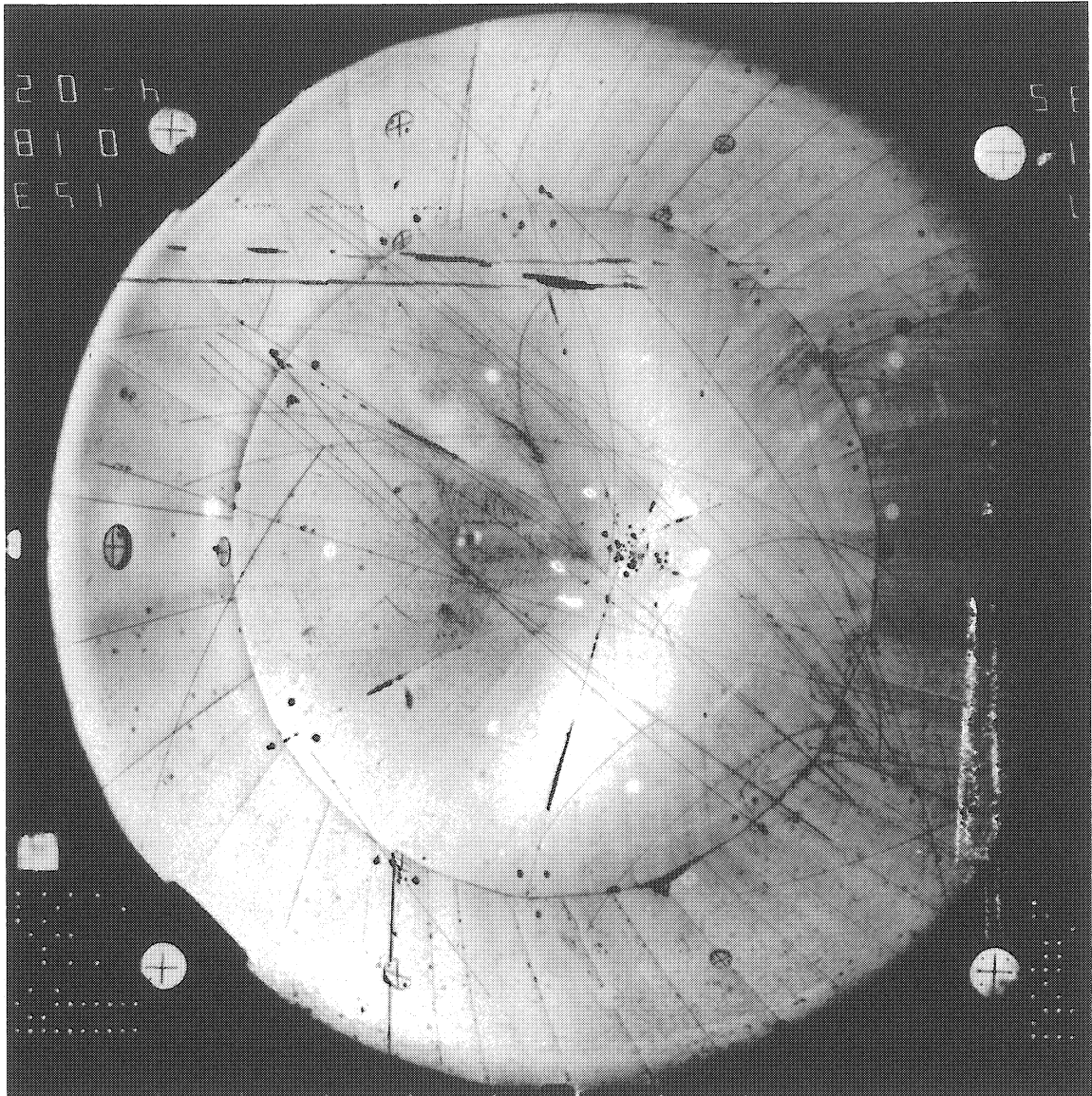


Fig. 1

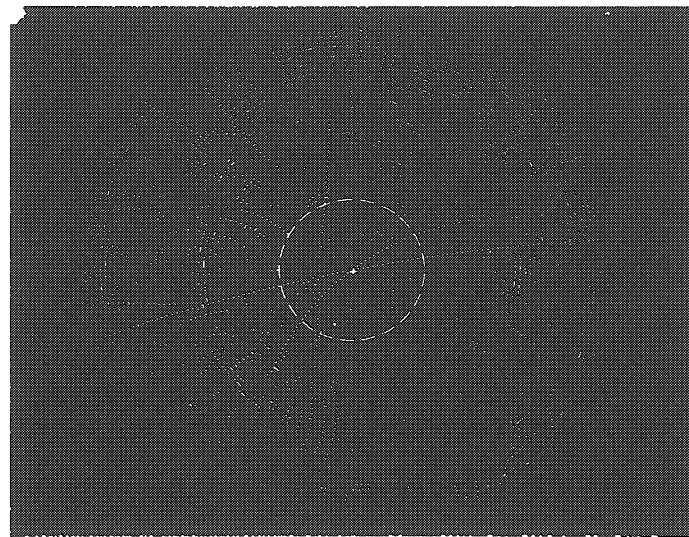
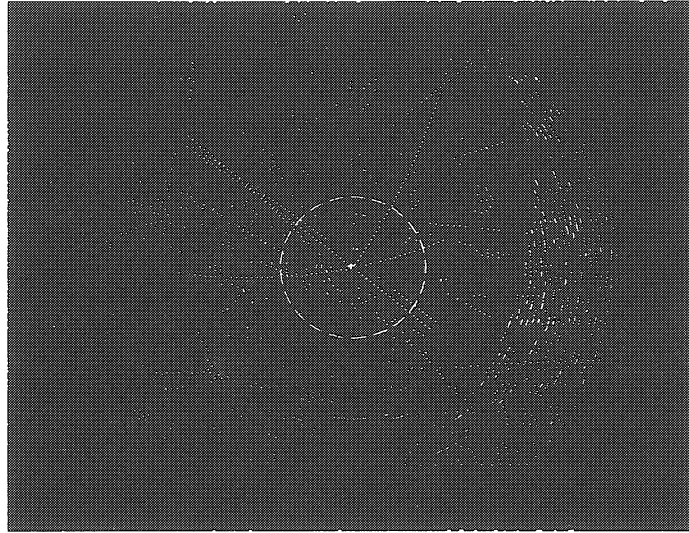


Fig. 2