

## MINUTES OF THE 2nd MEETING OF THE "HIGH BRILLIANCE" WORKING PARTY

HELD ON JULY 8th, 1969

Present: C. Bovet, E. Keil, P. Lapostolle, P. Lefèvre, M. Martini,  
K.H. Reich, C.S. Taylor.

1. The minutes of the previous meeting were approved except for one objection of E. Keil. On page 5 the sentence "... that besides extra RF power .... that only 5A ..." should be "... that the present bunch area means that only about 5A ...".
2. M. Martini exposed the main lines of the programs LINAC 1 and LINAC 2 (which, by the way, have changed their names into MAPRO 1 and MAPRO 2 respectively).

Since these programs are described in a paper which will be submitted to the 7th International Accelerator Conference at Yerevan<sup>\*)</sup>, only the main conclusions will be summarized here:

- i) MAPRO 1 and MAPRO 2 are two programs designed to trace a beam through a linac keeping into account space charge forces. They are now in a working state. They have been tested by comparing their results between themselves and with those produced in Brookhaven by Mrs. R. Chasman. They seem to work correctly.
- ii) The problem is now how to use best these tools to obtain useful results. The question is open and suggestions are invited.
- iii) The top priority goal is to produce, before the end of the year, a set of curves displaying output currents, emittances etc. at 10 MeV vs. input quantities at various injection energies. This should help to make a sound proposal for the higher energy pre-injector project.

Tests and improvements of the programs can, of course, be carried on in parallel.

M. Martini

Distribution (open)

Persons invited and informed  
MPS and SI Senior Staff

\*) M. Martini, M. Promè "Beam Dynamics in a Proton Linac with Space Charge".