



EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCH

Madame Roswitha RAHMY
Listes 6 et 18 = 2 ex.

CERN/PSCC 83-13
PSCC/S 67
25 February 1983

SEARCH FOR DECAYS OF HEAVY NEUTRINOS WITH THE PS BEAM

D. Perret-Gallix
LAPP, Annecy^(*)

M. Ferro-Luzzi, J.M. Perreau and Ch. Peyrou
CERN European Organization for Nuclear Research, Geneva, Switzerland

T. Bacon, R. Campbell and E. Clayton
Imperial College, London, UK

J.M. Levy, Y. Pons, M. Rivoal and F. Vannucci
LPNHE, Paris, France^(*)

Spokesman: F. Vannucci

S U M M A R Y

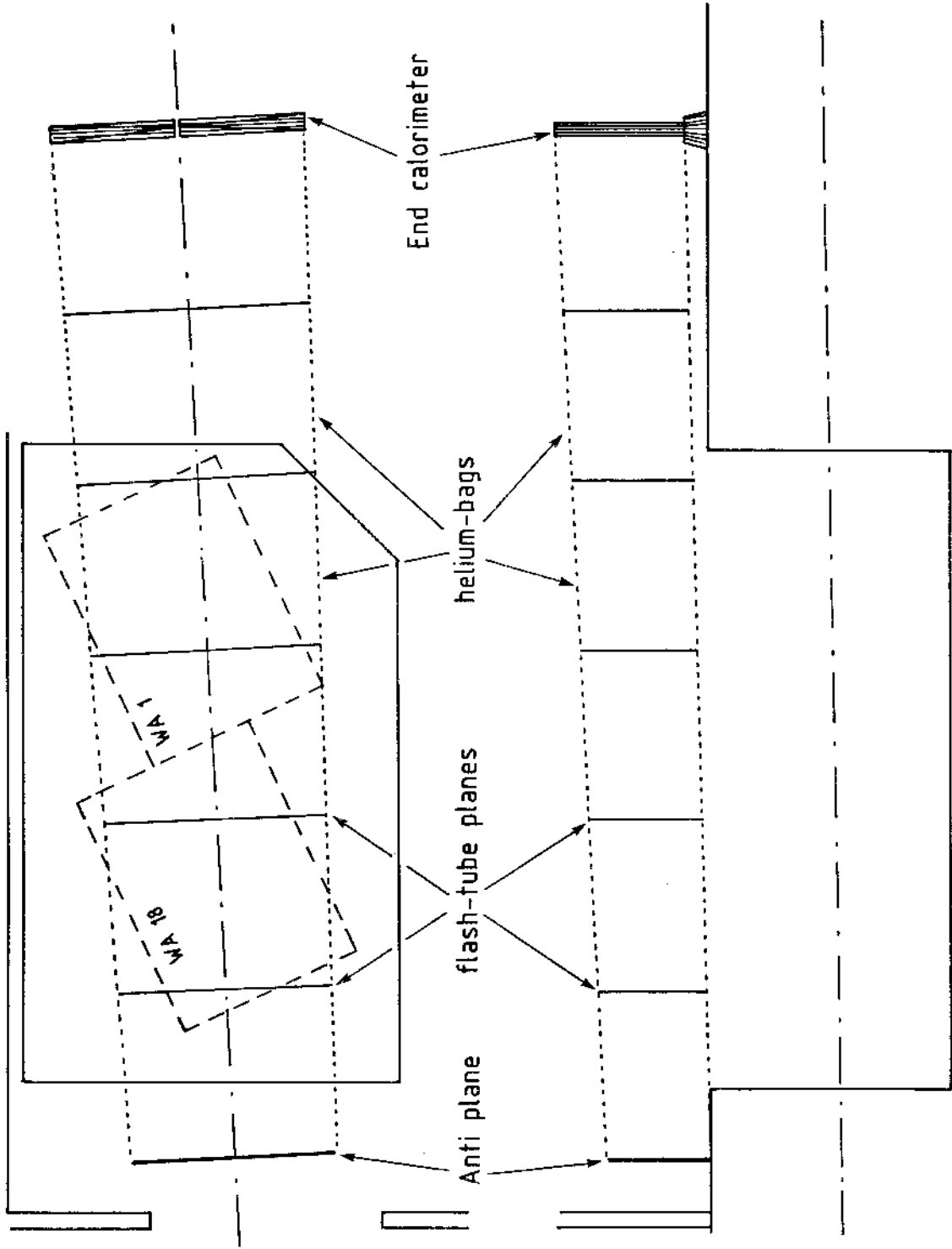
The experiment searches for neutrino decay, primarily into the $e^+e^-\nu_e$ and $\gamma\nu_e$ modes. Neutrino masses in the region between 1 and 400 MeV will be explored. The beam used is the neutrino PS beam used for the oscillation experiments. The apparatus consists of a decay volume ~ 30 m long and a calorimeter ~ 8 radiation lengths thick and ~ 20 m² in surface. The detectors are flash-tube modules of the type developed at Saclay for the proton-stability experiment. Scintillator hodoscopes give the timing information necessary for the trigger logic and background rejection.

CERN LIBRARIES, GENEVA



CM-P00044421

Top view



Side view

Fig. 3