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Listes 6 et 18 = 2 ex.

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PROPOSAL

MEASUREMENT OF THE RARE DECAY  $K^+ \rightarrow \pi^+ \nu \bar{\nu}$

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SUMMARY

The purpose of the experiment is to measure the branching ratio of the rare decay mode  $K^+ \rightarrow \pi^+ \nu \bar{\nu}$ . The expected value is  $\sim 10^{-10}$ . The  $K^+$  are at rest and are provided by the  $K_{26}$  beam of the PS East Hall. The detector consists of a large volume of liquid argon viewed by a system of photomultipliers and sensed by charge-collecting wires. The signals from the Cherenkov and scintillation light emitted by the products of K decays in argon are used to reject all decay modes except the one under study.

Spokesman: M. Ferro-Luzzi

(\*) Subject to approval by IN2P3

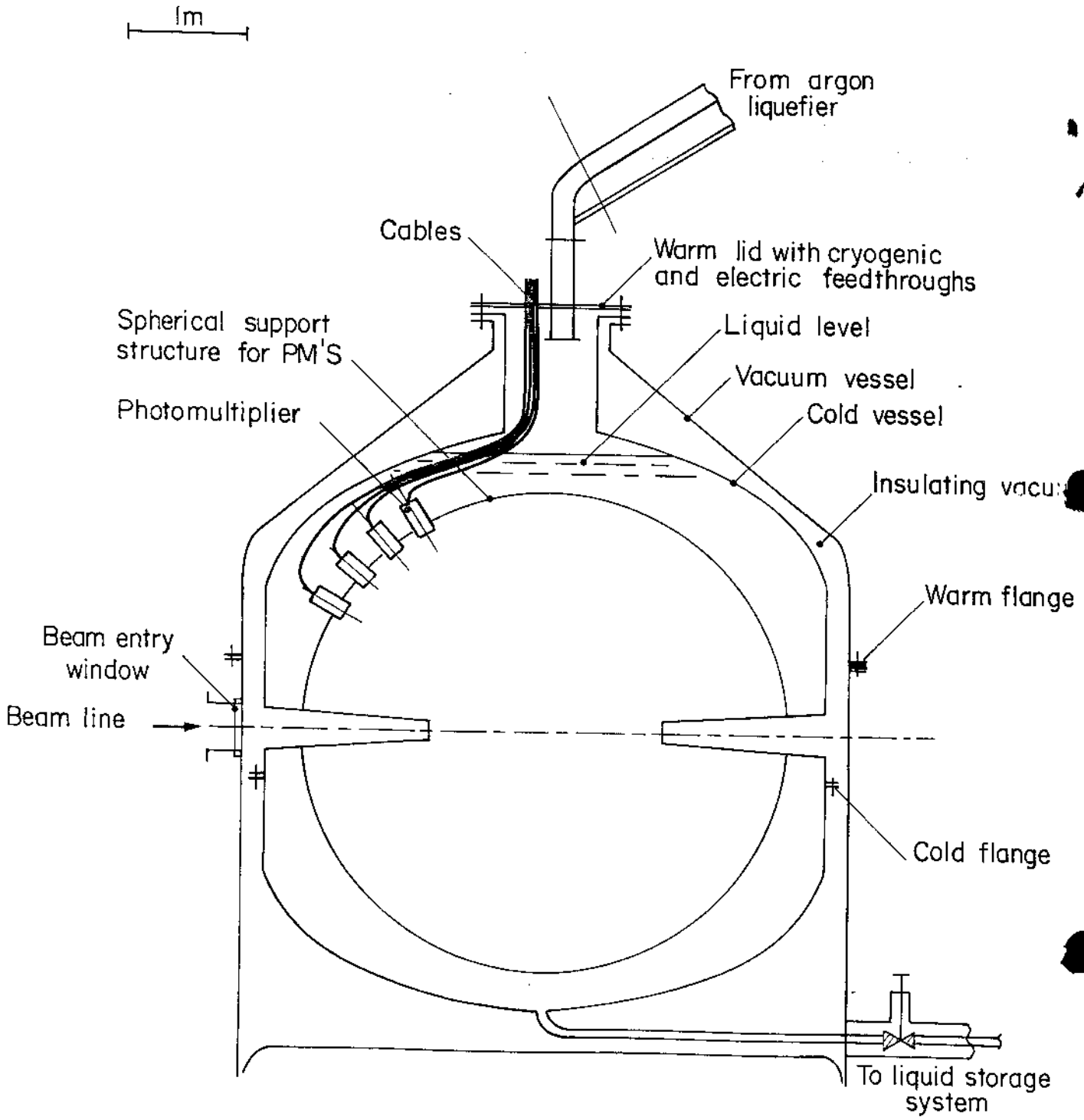


Fig. 6 - Detector assembly and its connections with the outside world.