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MEMORANDUM

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Ref.:

The PSCC

From/De:

Rome-Saclay-Vanderbilt Collaboration

Subject/: Objet

Beam time request for experiment PS 159

Since the last status report in June, 1980, data have been taken for the following reactions:

$$K^-d \rightarrow K^+H_2^- \qquad (1)$$

$$K^{-}d \rightarrow \pi^{-}H_1^{+} \qquad (2)$$

$$\pi^{+}d + K^{+}H_{1}^{+}$$
 (3)

at 1.4 GeV/c. H₁ and H₂ are dibaryonic states of strangeness -1 and -2, respectively.

There is a good evidence in reactions (2) and (3) for a narrow dibaryonic system with the same mass and the same width in both channels.

On the contrary, there is no H_2 candidate in reaction (1). The detailed results will be presented at the Open Session.

We are in a good position to be able to understand the mechanism of production of the H1 states. For that purpose, we have to take more H1 data at different incident momenta for reactions (2) and (3). Therefore, we ask the PSCC for beam time allocation in Periods 1 and 2 in 1981. We would also like to ask for CERN computer time in 1981.