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 Beam: N3
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AN EXPLORATORY EXPERIMENT AT VERY HIGH NEUTRINO ENERGY IN A NARROW BAND BEAM

WITH GARGAMELLE

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This experiment plans to explore, with limited statistics the region of the highest available neutrino energy in the narrow band beam N3 with parents of 275 GeV/c. Some processes and quantities which are of special interest to be studied in a detector as GGM where the vertex is visible are:

- a) Dilepton events; is there a threshold effect for $\mu\mu$ -events, and are they produced with a hadronic shower? Does μe pair production exist with the same rate?
- b) Mean particle multiplicities up to $E_\nu = 240$ GeV; neutral strange particle production; anomalies in the $q^2\nu$ -plot
- c) Determination of the mean angle θ_H of the hadronic shower in $n c$ processes

The filling of Gargamelle will consist of a propane-freon-mixture with a $\sim 90\%$ γ conversion probability. A small hadron calorimeter close to the end window of the chamber will help in determining the energy of the hadronic shower. The EMI is needed throughout.

A run with an integrated intensity of $2 \cdot 10^{18}$ protons onto the target is requested early in 1977. Such a run would result in more than $1000\nu_\pi$ and $700\nu_K$ -events.

Running can be done parasitically when experiment WA1 is running in the same beam.

(Summary edited by R. Budde)

Reference:

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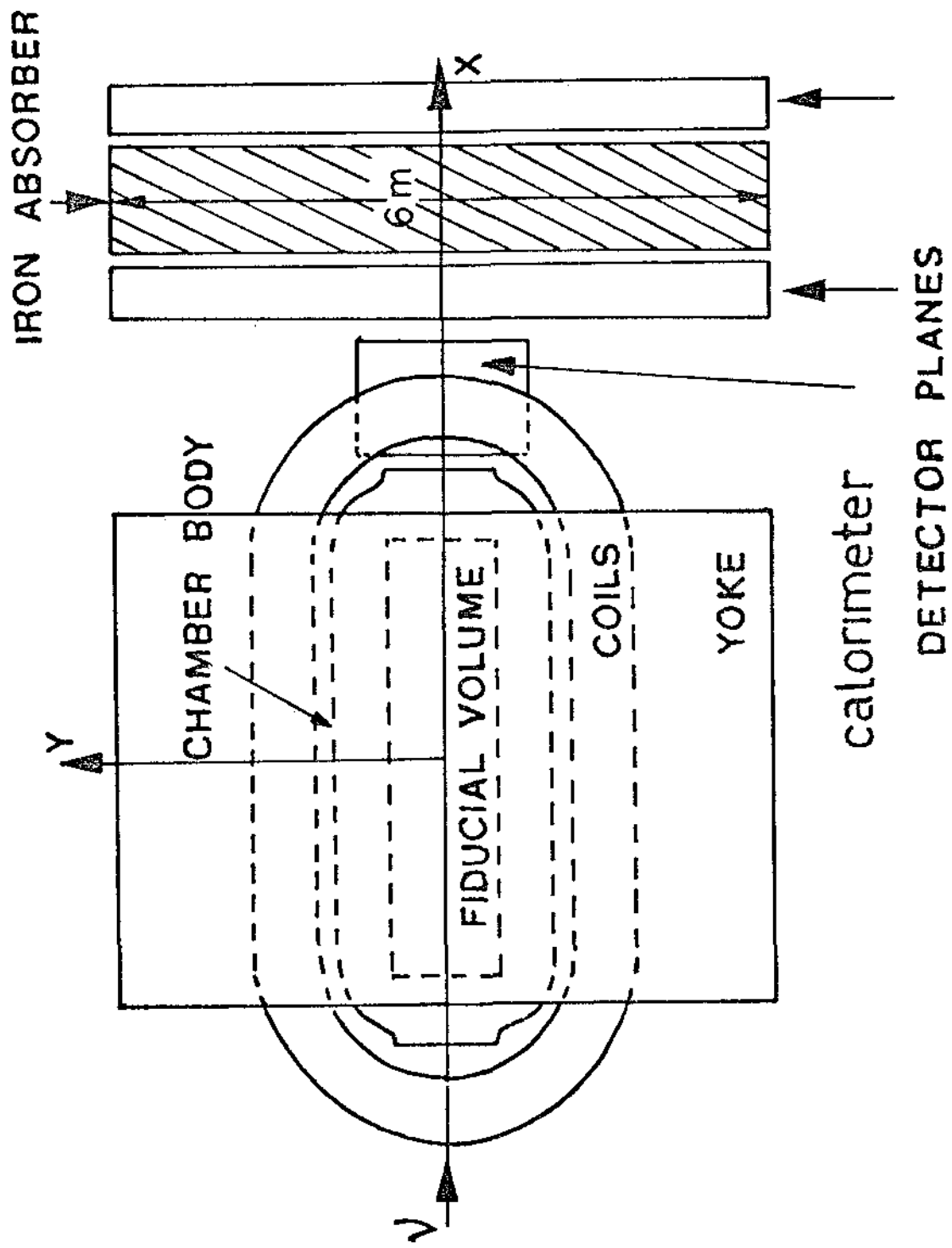


Fig-4