

Concept of new gamma ray detector

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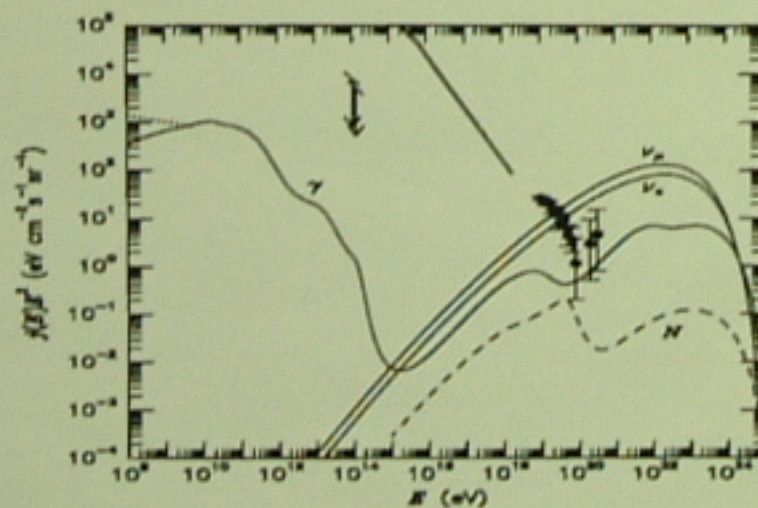


I propose gamma ray detector in the energy range of 100 MeV to 100 TeV. Concept is to measure the track of electron positron pairs made by pair creation.

Motivation

Observation of TeV gamma ray background

—>set limit on X particle

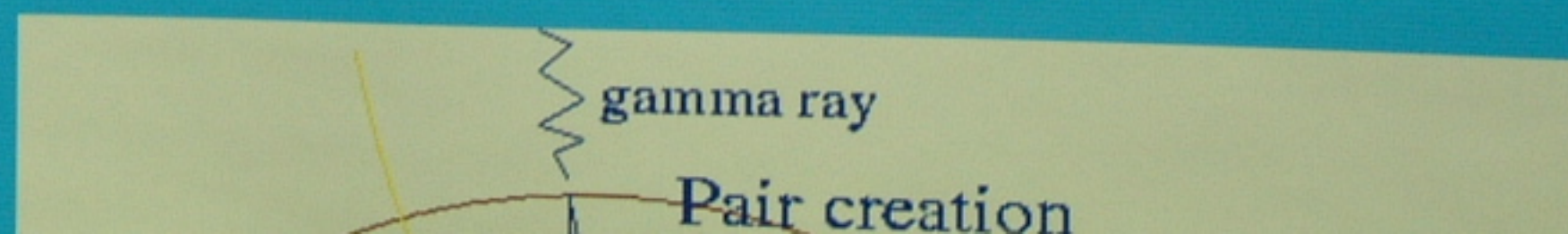


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Track in the Magnet

- energy of gamma ray
- arrival direction
- discrimination between e^+e^- (2track) and cosmic ray(1 track)

Tracker Si(10 μ m)



Tracker Si(10 μ m)

—>energy range

100 MeV – 100 TeV

arrival direction 10⁻⁵ rad

Sensitivity of pointsource

100 MeV – 100 GeV

Temperature 4.2K

Weight of Magnet 600 kg

F.O.V. 90°x180°

