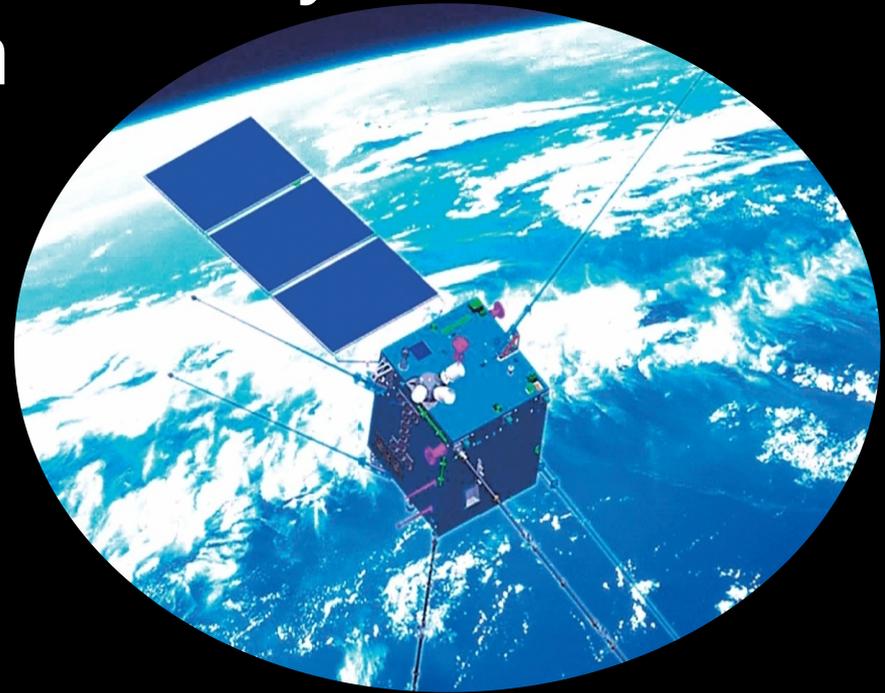


Performance of the HEPD-02 LYSO calorimeter and expected sensitivity to GRBs detection

Stefania Perciballi (stefania.perciballi@edu.unito.it)

On behalf of the CSES-Limadou Collaboration

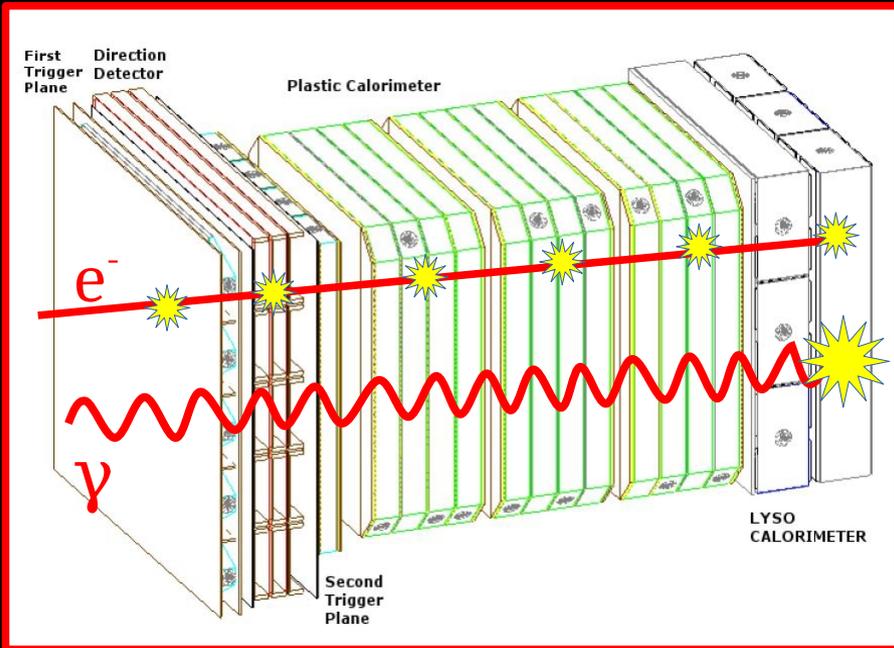


ONLINE ICRC 2021
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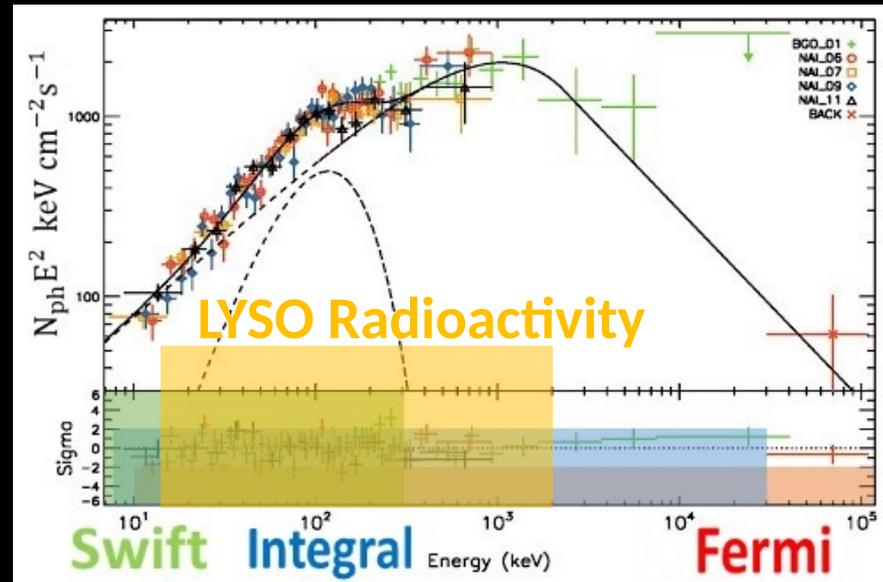
37th International
Cosmic Ray Conference
12–23 July 2021

A stylized, colorful graphic of a city skyline. It includes various buildings and structures in shades of purple, orange, yellow, green, and blue. A small airplane is flying in the sky above the skyline.

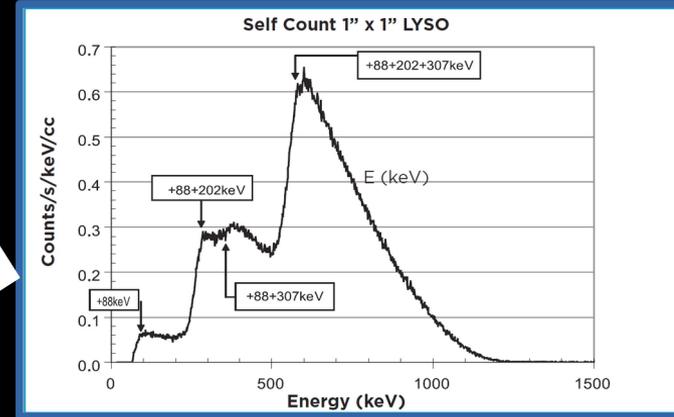
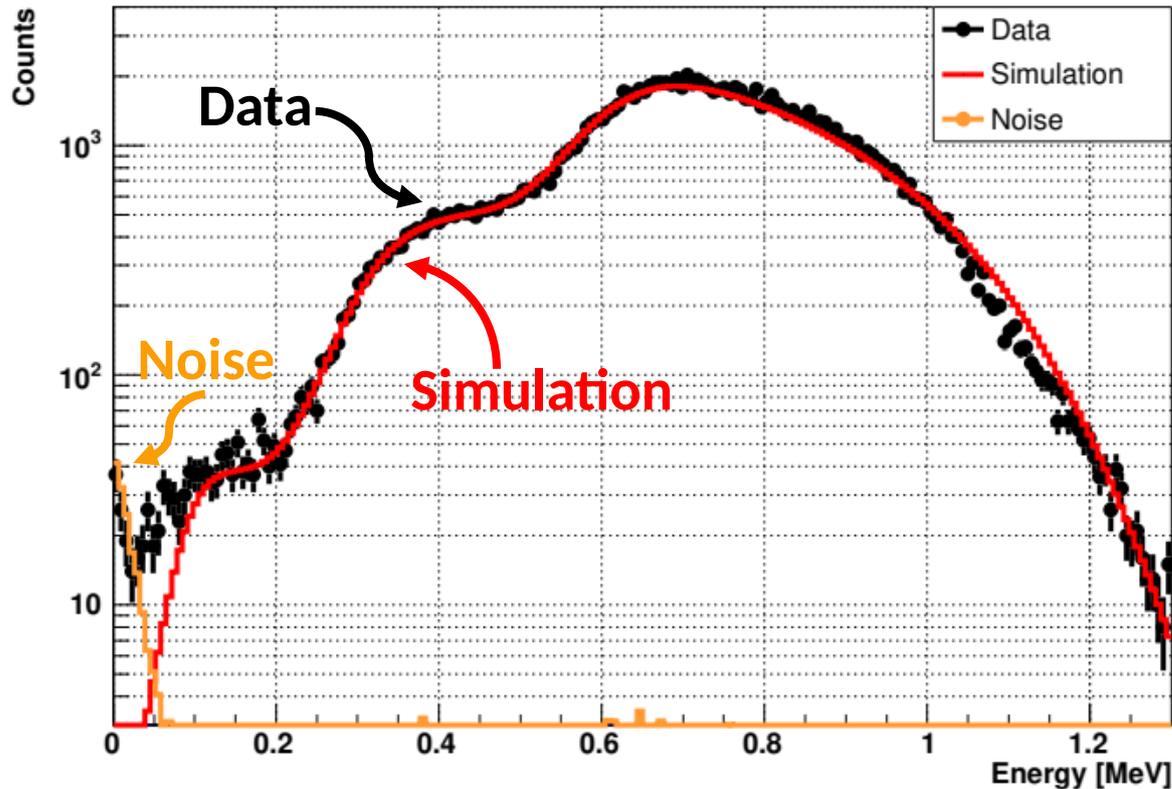
HEPD: High Energy Particle Detector



Is it possible to use this detector for GRBs measurements?

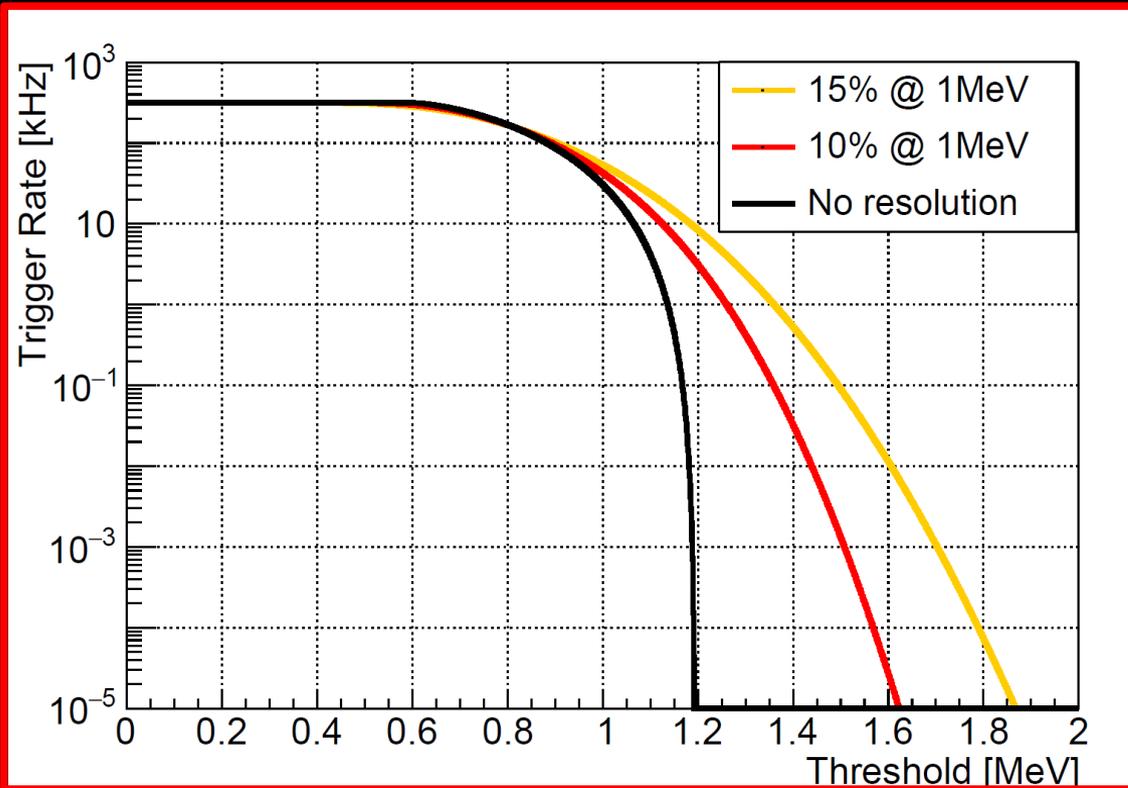


LYSO background spectrum

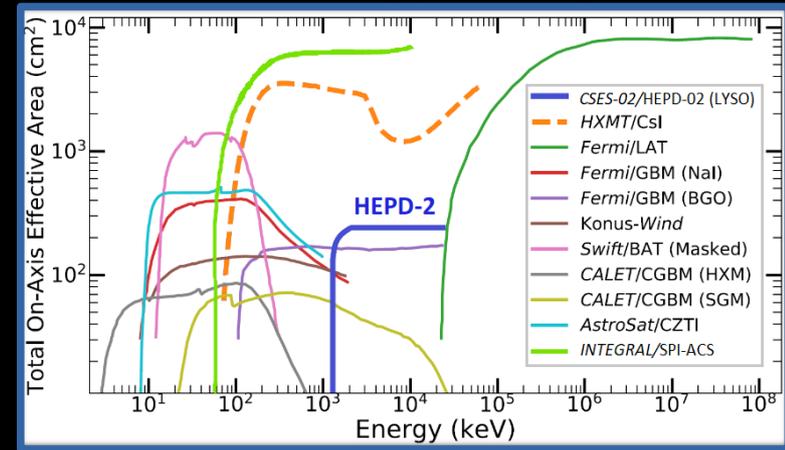


- $^{176}\text{Hf}^*$ relaxation produces 3 X-rays
- LYSO radioactivity upper limit 1.5 MeV

HEPD performance for GRBs detection



- GRBs detection is possible for energy greater than 1.5 MeV with 1 Hz background rate
- HEPD-02 will be able to detect GRBs in the 2-20 MeV energy range



Thank you
for the attention!