

EXTERNAL BACKGROUND SIMULATION FOR CYGNO-04 DETECTOR

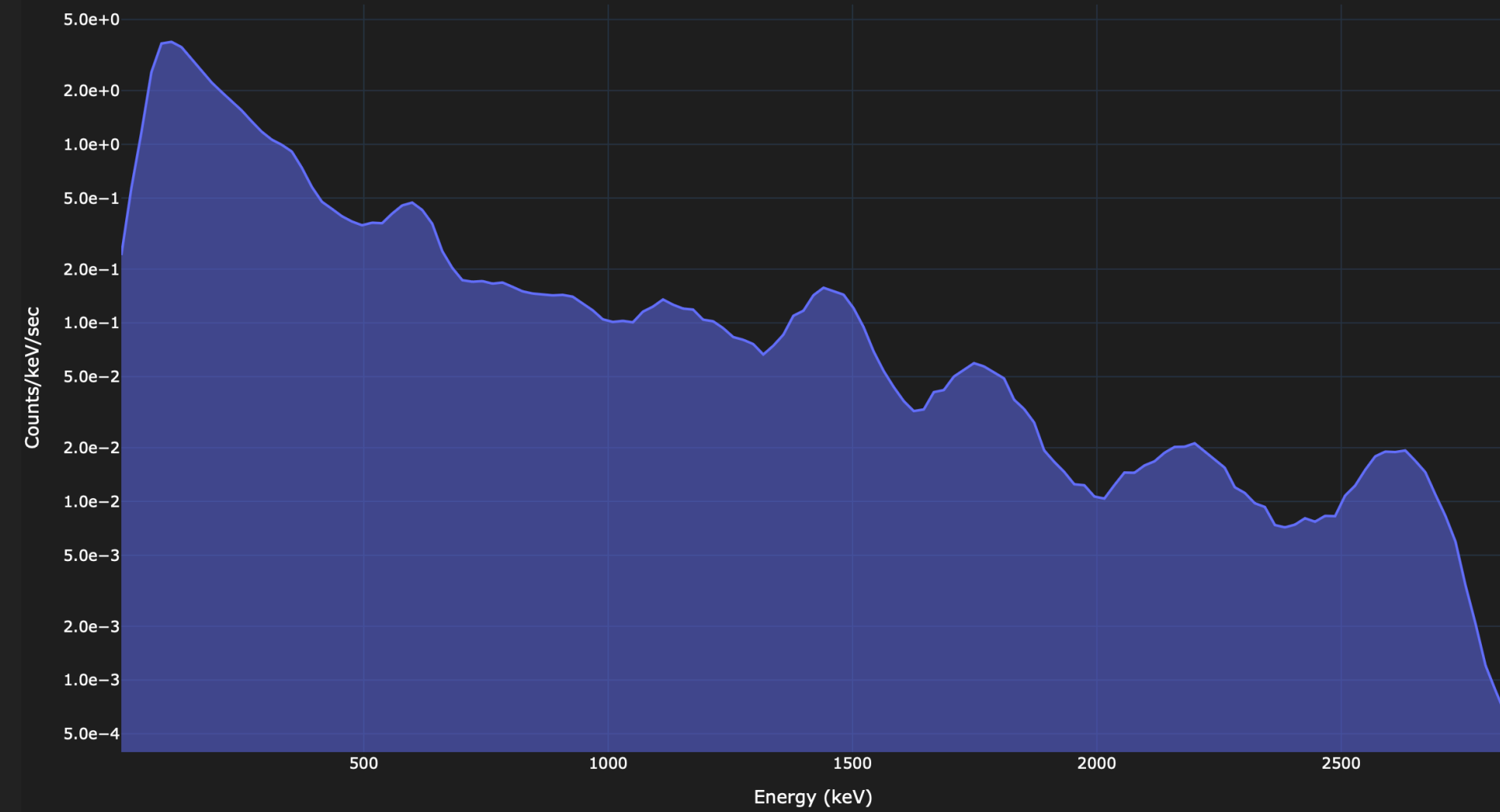
MELBA D'ASTOLFO

SIMULATION MEETING, 20/05/2024

GAMMA BACKGROUND LNGS



CUMULATIVE GAMMA BACKGROUND LNGS



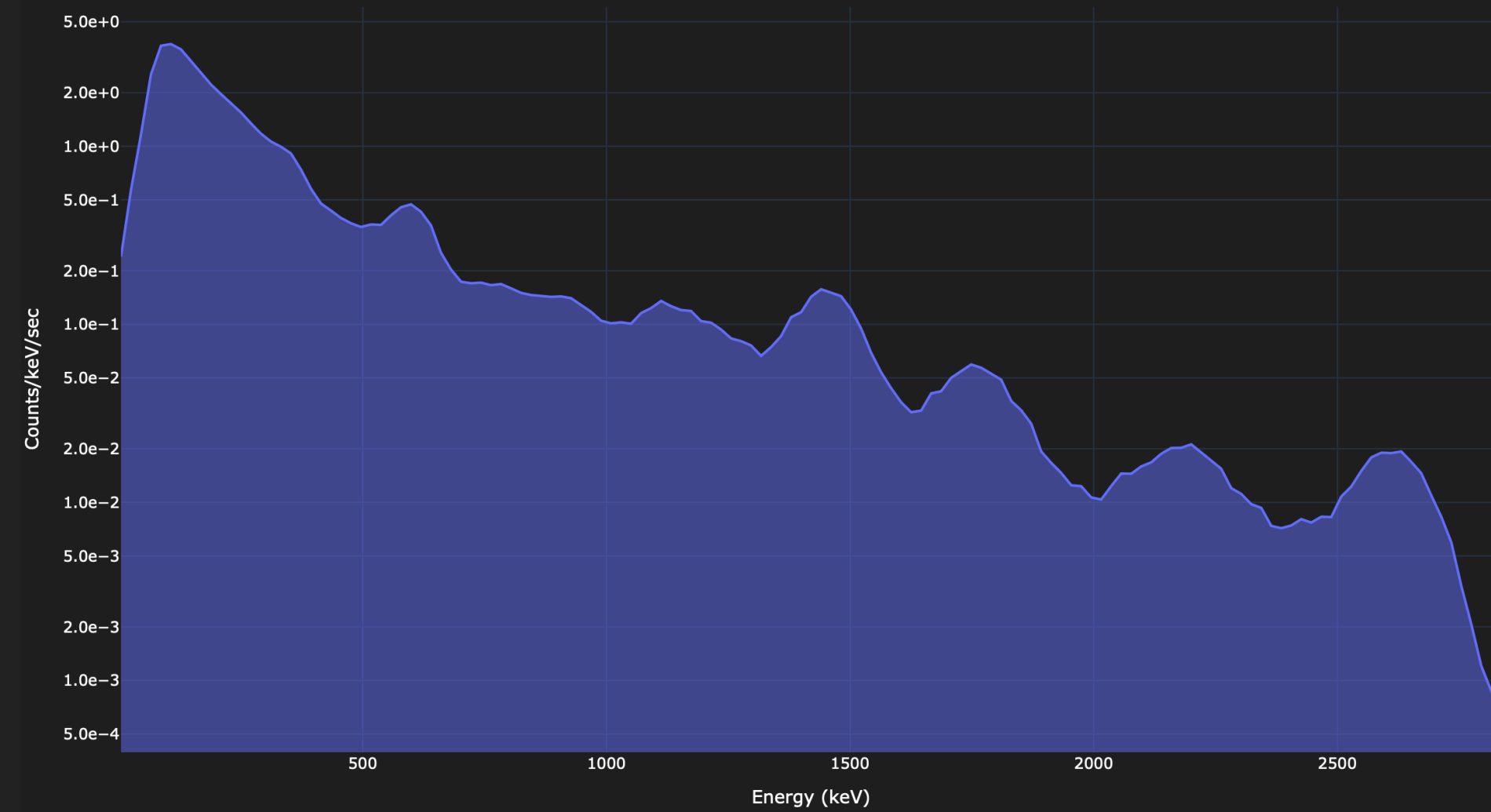
0.18 Counts/cm²/s

=

$$\left(\sum_i C_i \right)$$



CUMULATIVE GAMMA BACKGROUND LNGS



$$= 0.18 \text{ Counts/cm}^2/\text{s}$$



\neq

$$0.58 \text{ Counts/cm}^2/\text{s}$$

GAMMA RATE CYGNO-04



$$t_{eq} = \frac{\gamma_{in}}{Surf \times \sum_i C_i}$$

