



# Background Rates Update

Oct. 3, 2024

OV Group Meeting, Alec Peck

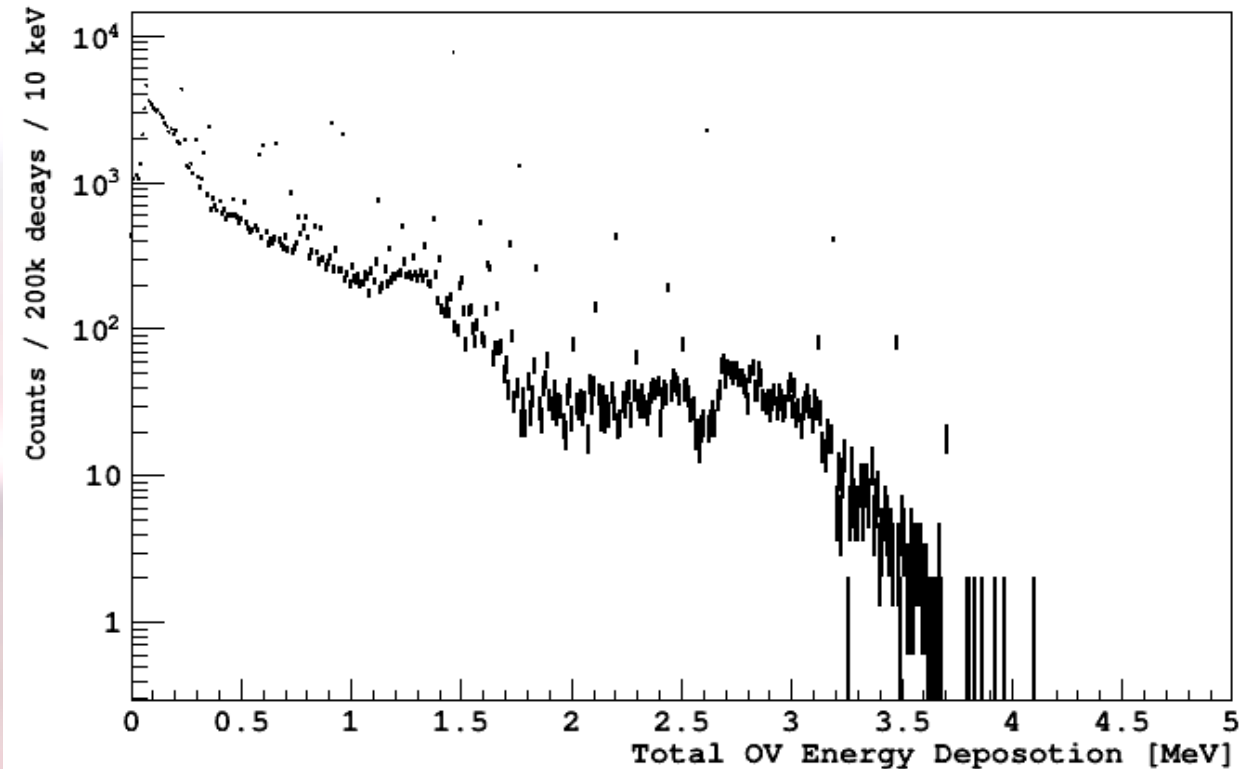


# Radioactive Backgrounds

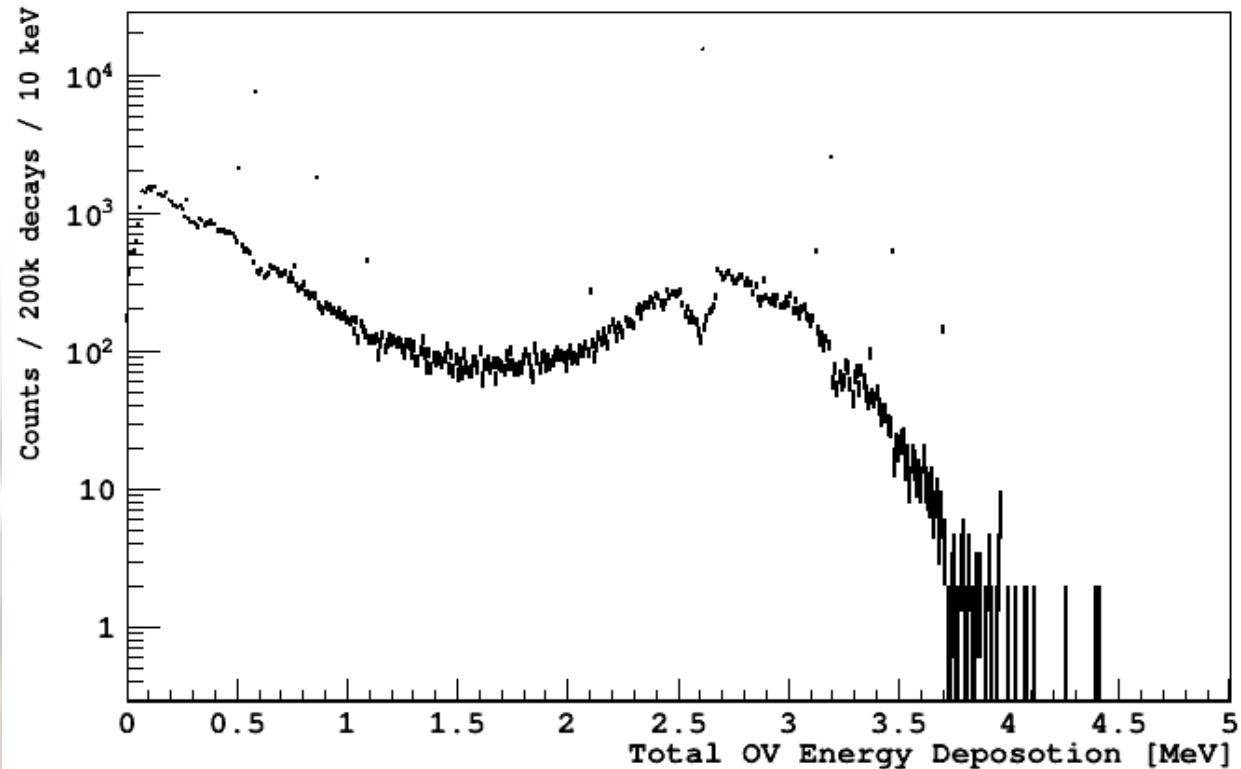


## Highest depositions from Tl208 decays

Total Edep in Veto Argon, RPUF only



Total Edep in Veto Argon, Tl208 only

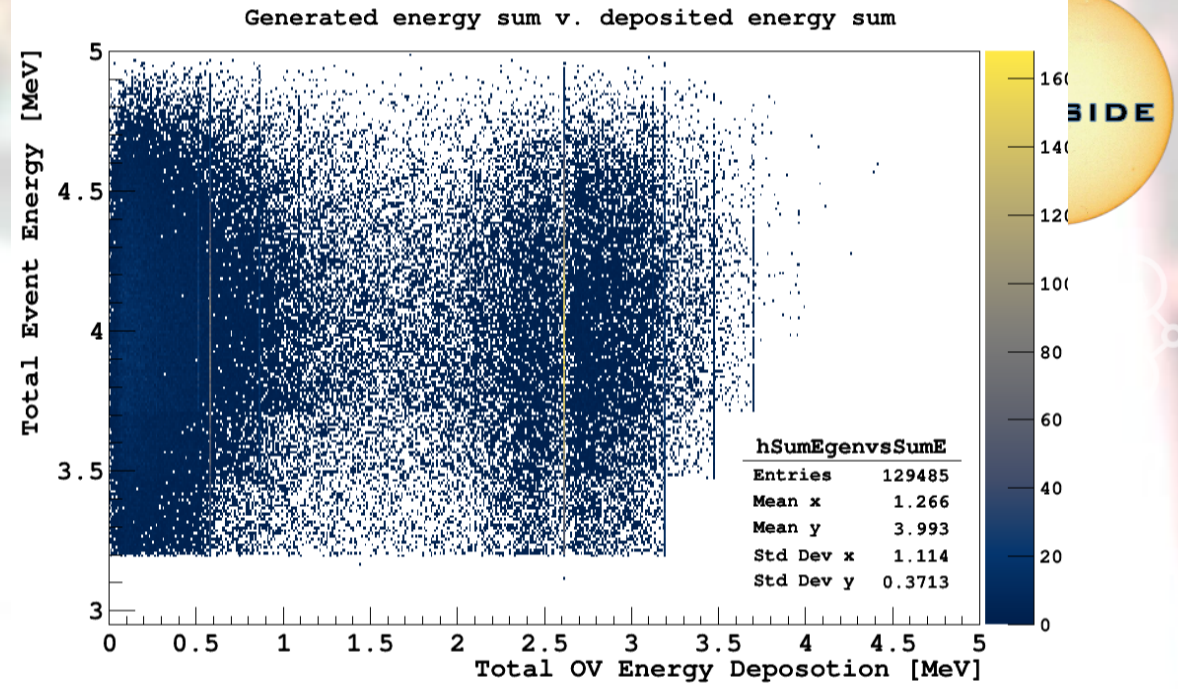




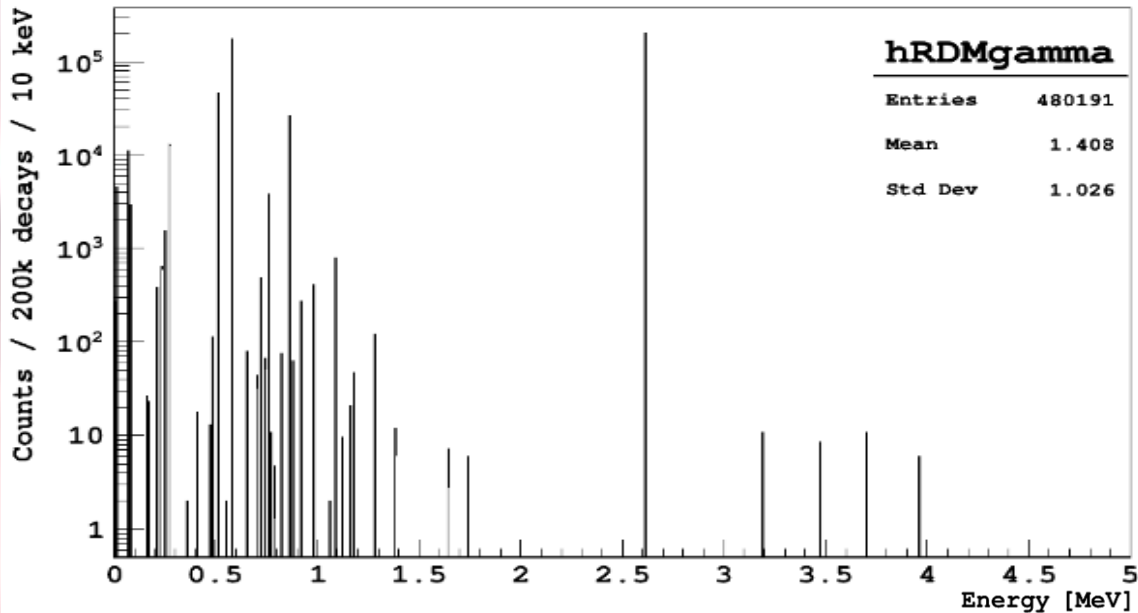
# Tl208 Decays

## Coincidence between beta and gamma spectra

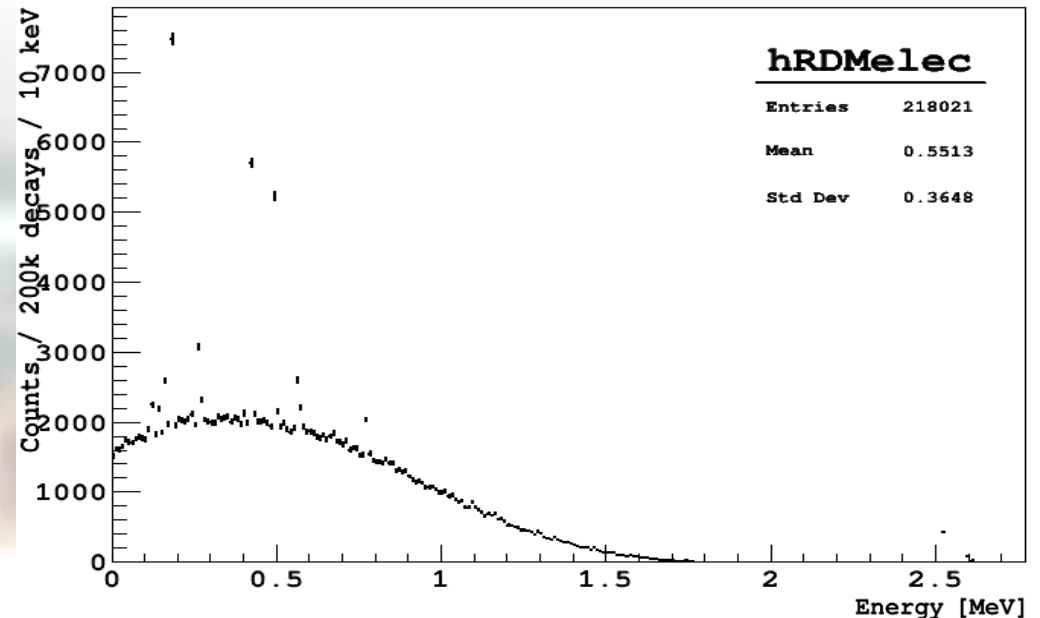
- Sharp cutoff in deposited energy at strong gamma lines
- Beta and conversion electrons match simulated spectrum
- Gamma line intensity matches simulated spectrum



Gamma spectrum of RDM decay



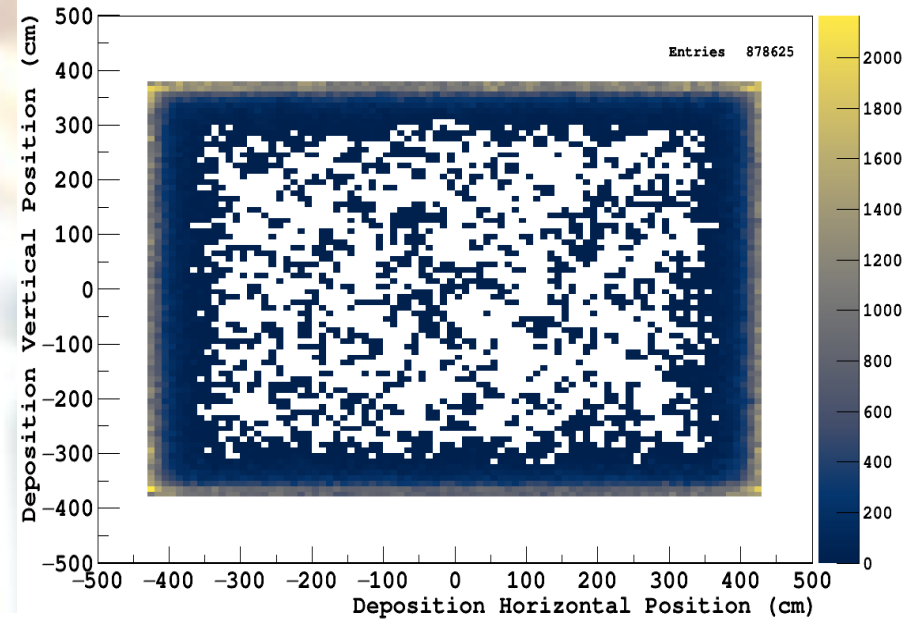
Electron spectrum of RDM decay



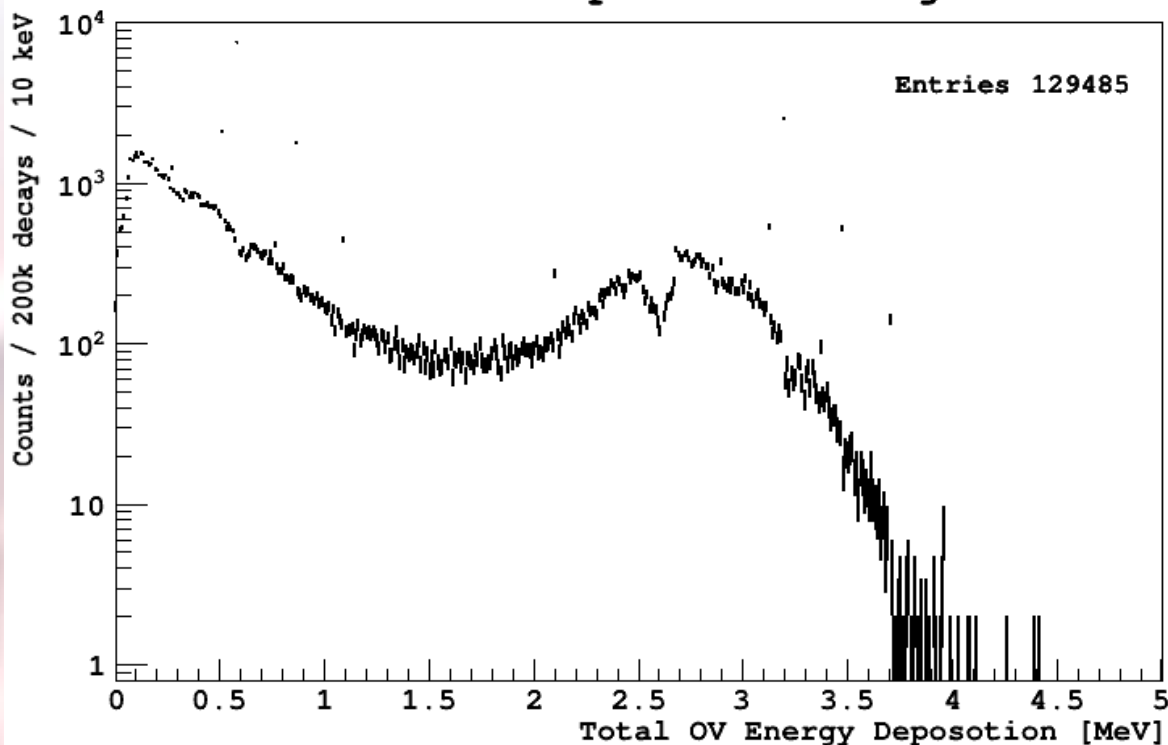


# Spatial Distribution

Most (~80%) energy deposition in outer 50 cm



Total Edep in Veto Argon



Total Edep in Veto Argon (Exclude outer 50 cm)

