




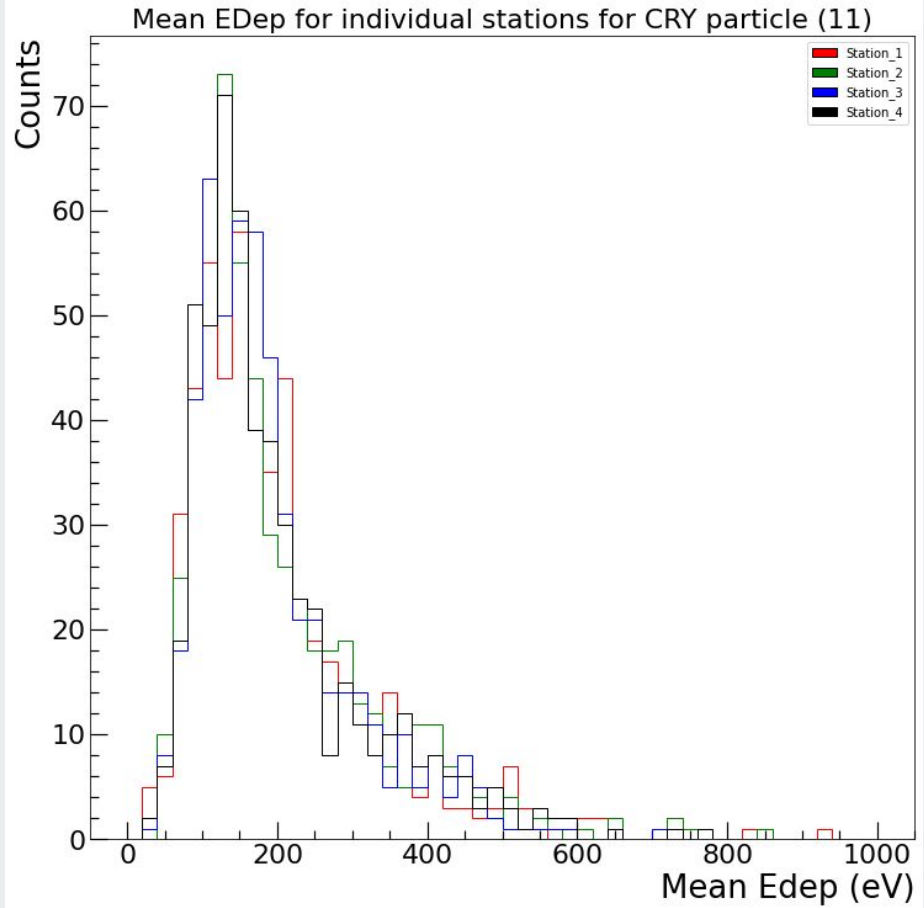
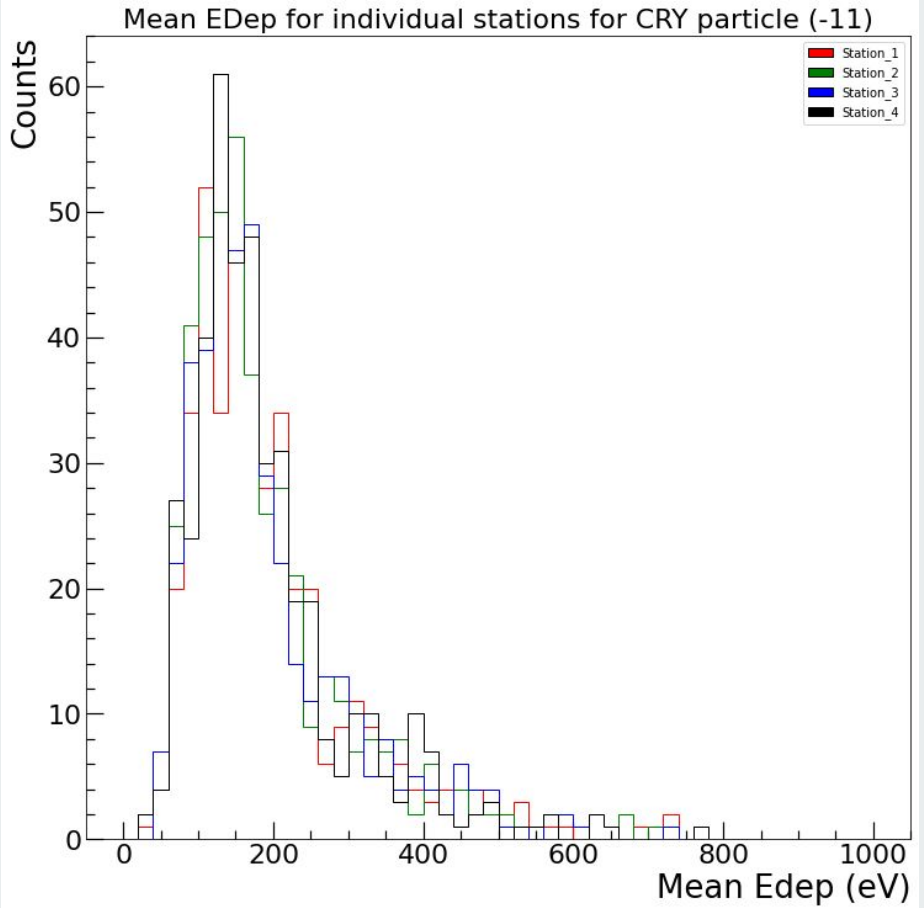
mRPC Simulation Update

By
Prithivraj Govindaraj

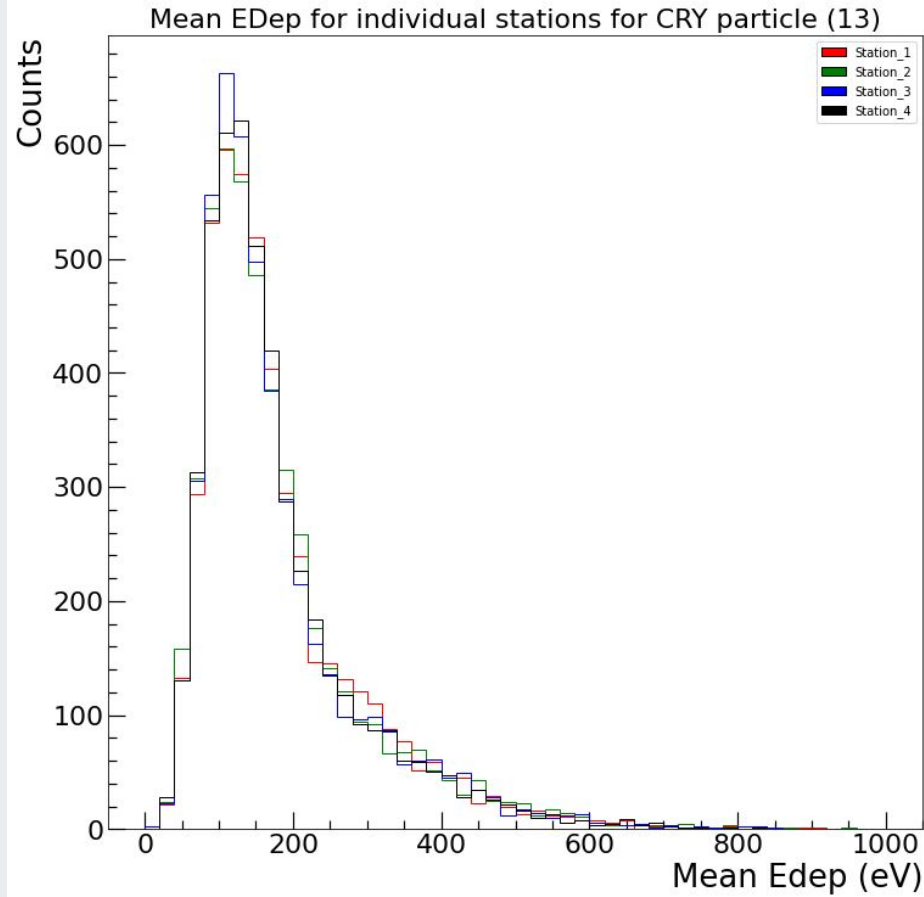
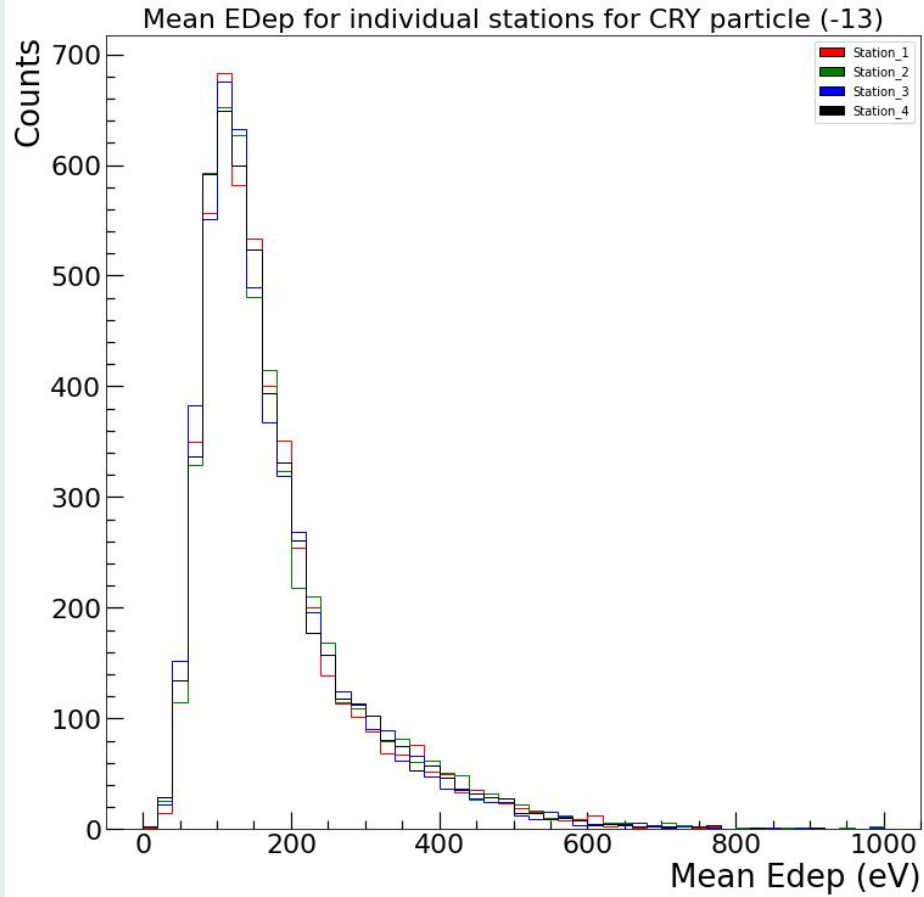
mRPC simulation-Preliminary analysis with G4GPS

- 
- ❖ Mean EDep for individual stations for CRY primary particles
 - ❖ Sum of EDep for individual stations for CRY primary particles
 - ❖ Survival Probability of CRY Primary Particles
 - ❖ Time Smearing

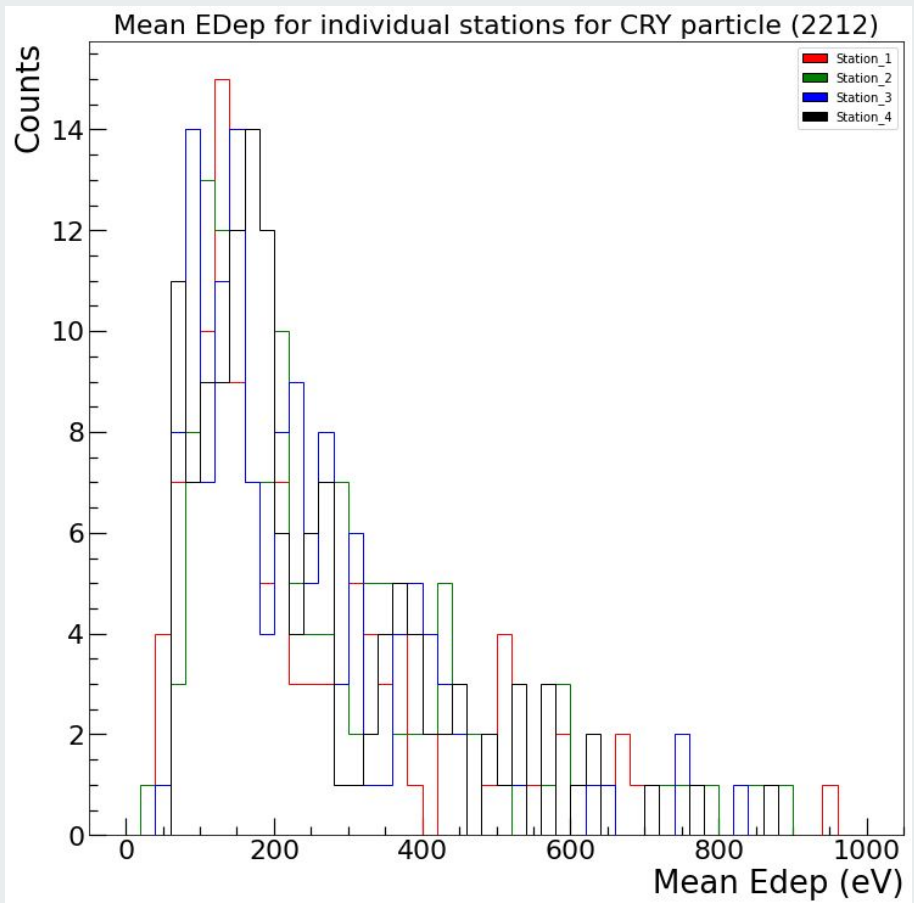
Mean EDep for individual stations for CRY primary particles



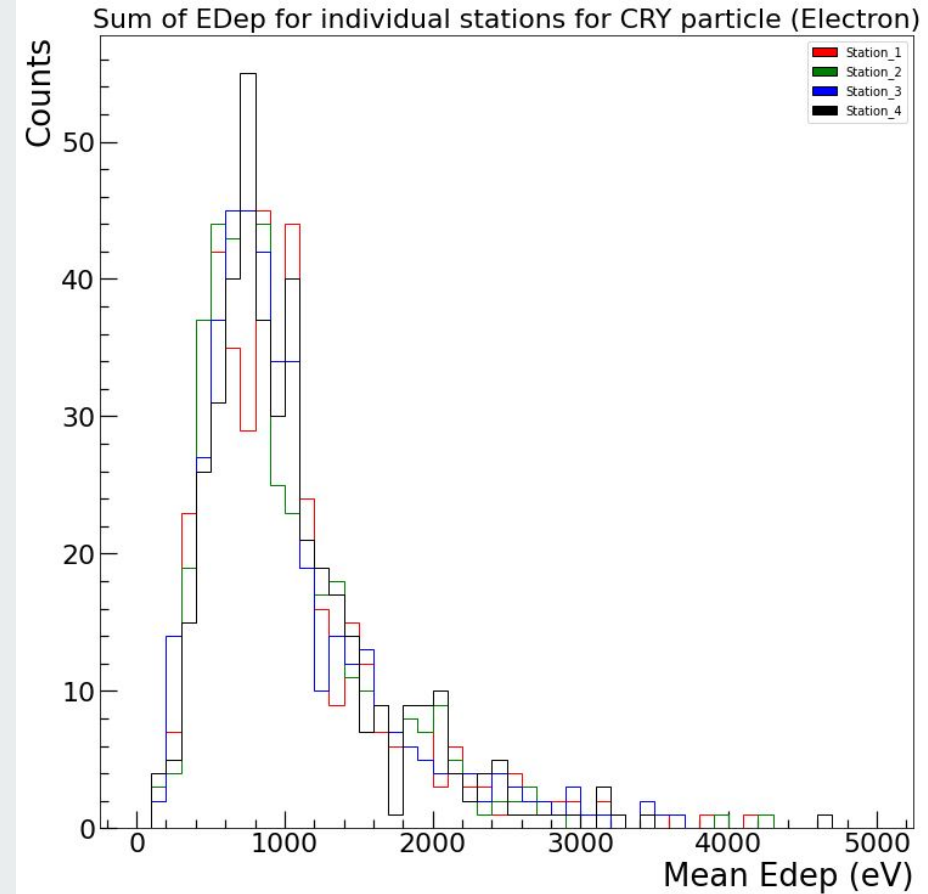
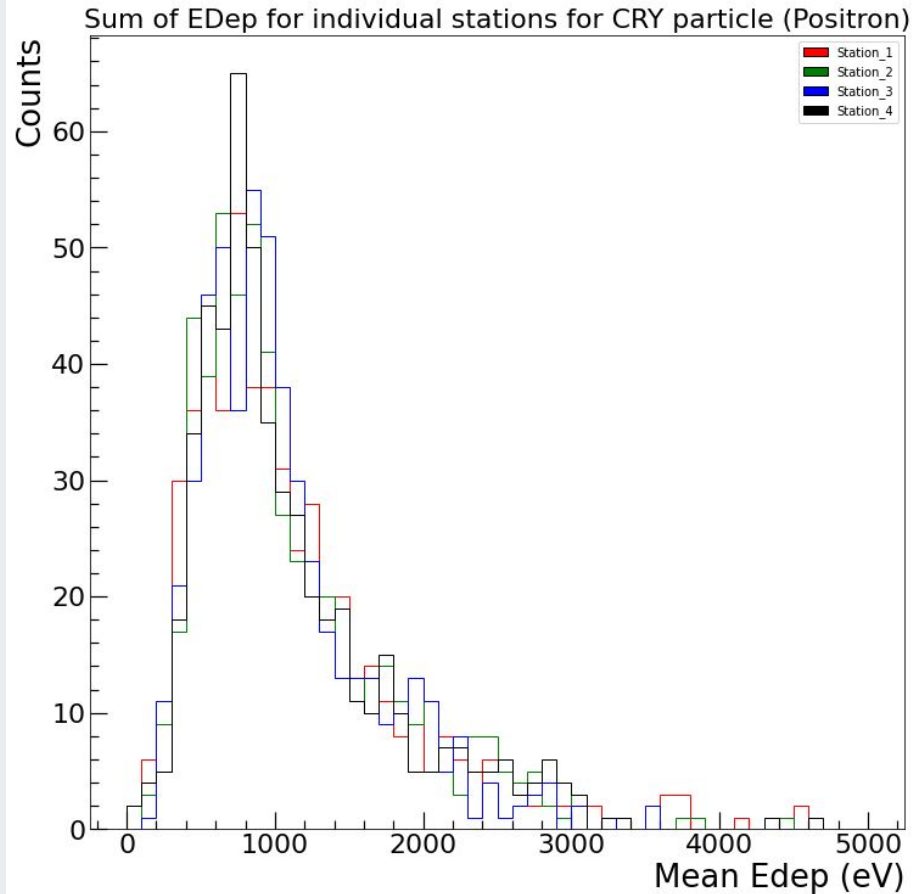
Mean EDep for individual stations for CRY primary particles



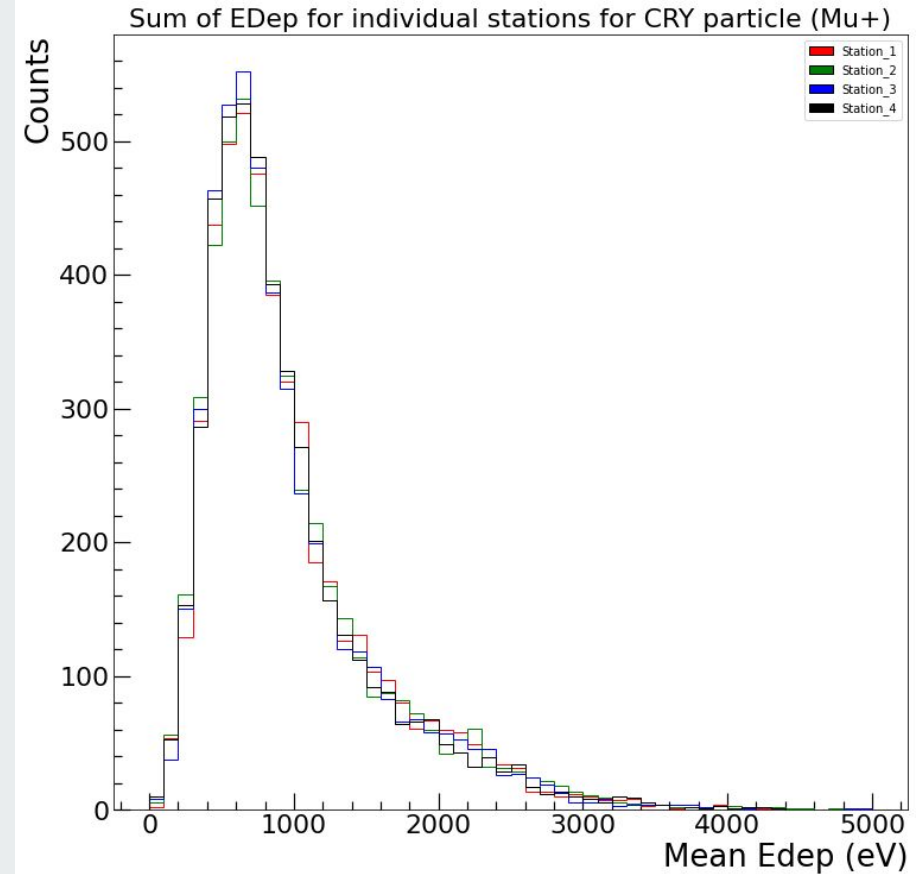
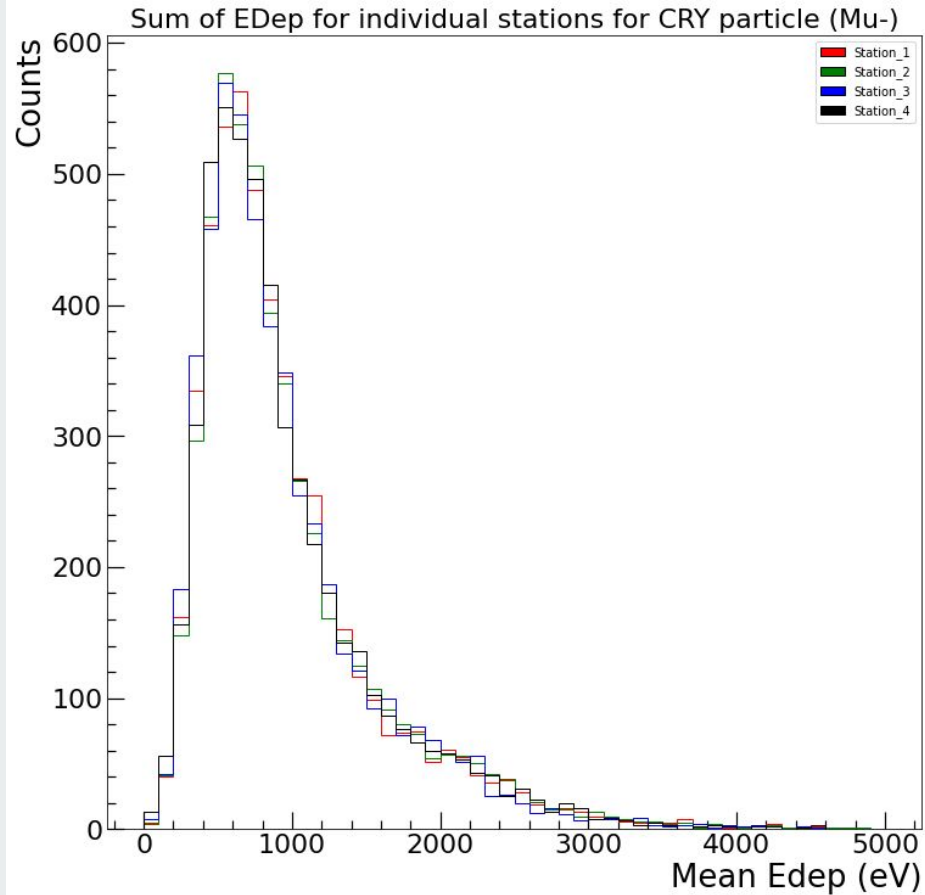
Mean EDep for individual stations for CRY primary particles



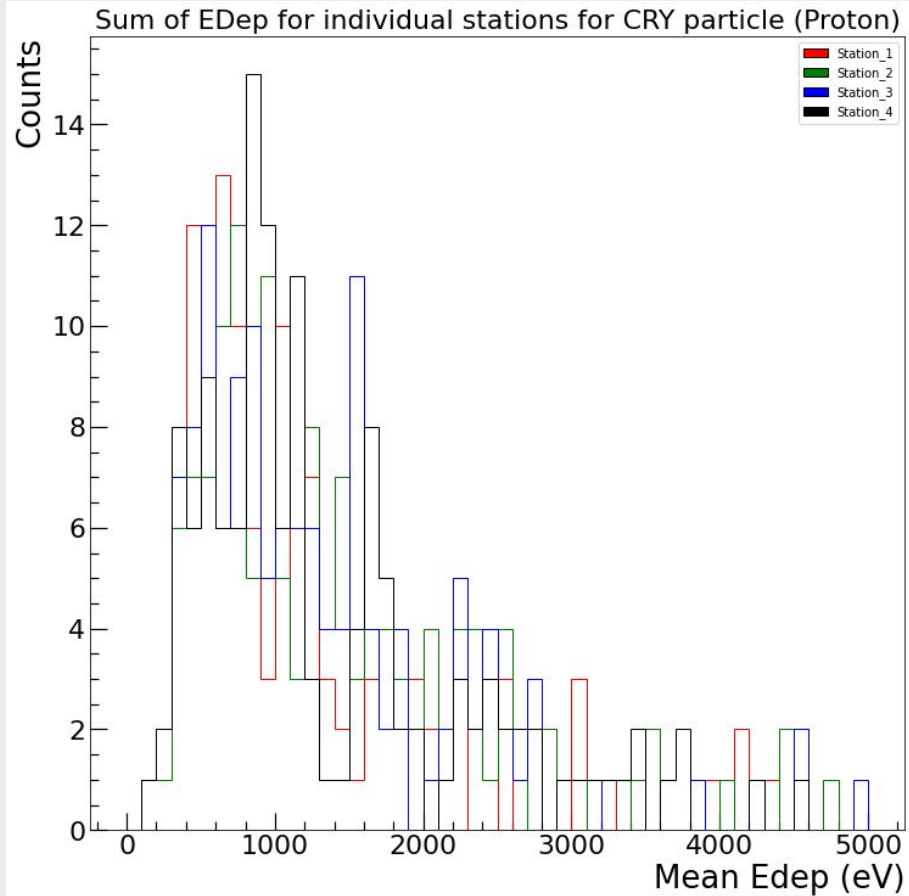
Sum of EDep for individual stations for CRY primary particles



Sum of EDep for individual stations for CRY primary particles




Sum of EDep for individual stations for CRY primary particles



This data is for CRY Source of
500K Events

Survival Probability of CRY Primary Particles

This data is for CRY Source of 2000K Events



Primary Particles	No of Events in Station 4	No of Events in Station 1	Survival Probability
Electron (-11)	6741	3735	55.407%
Positron (11)	9498	4670	49.168%
Mu- (13)	37573	34559	91.978%
Mu+ (-13)	40449	37268	92.136%
Proton (2212)	1164	885	76.031%

Time Smearing



- 1. 20 gas gaps Multigap Resistive Plate Chamber: Improved rate capability with excellent time resolution**
- 2. Multigap Resistive Plate Chambers for Time of Flight Applications**
- 3. The multigap resistive plate chamber as a time-of-flight detector**
- 4. Detector physics and simulation of resistive plate chambers**



**What should I try with 2000K
Events?**

