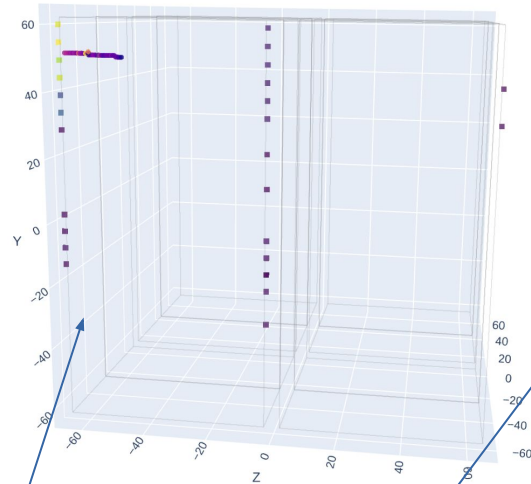
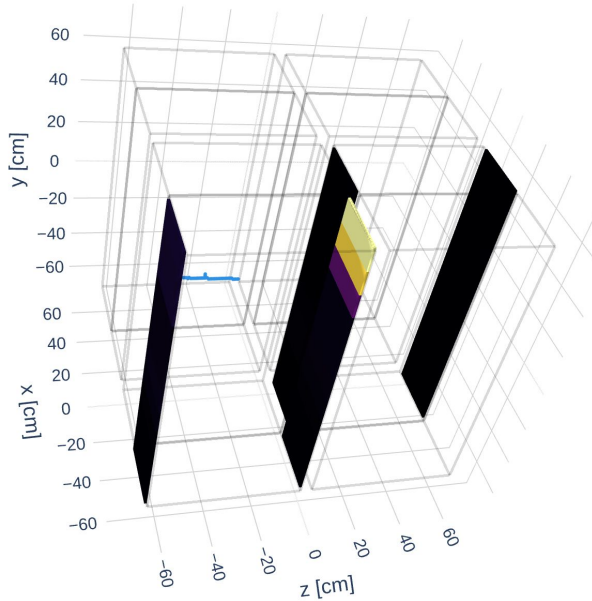


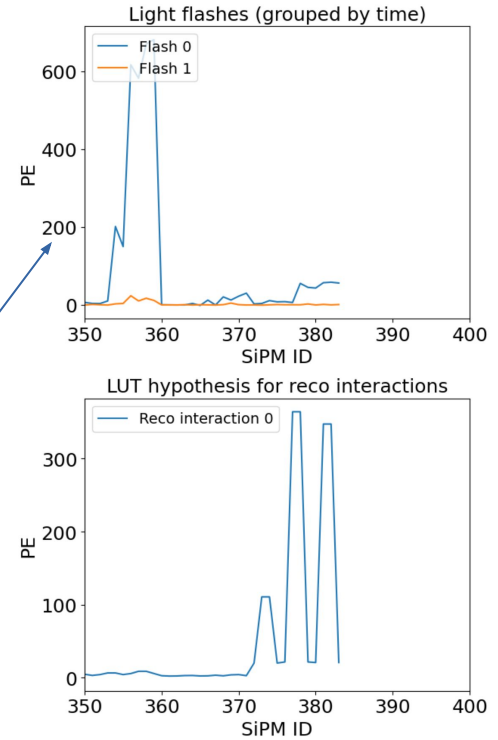
# Post-reco flash matching updates

Sindhu Kumaran, UC Irvine

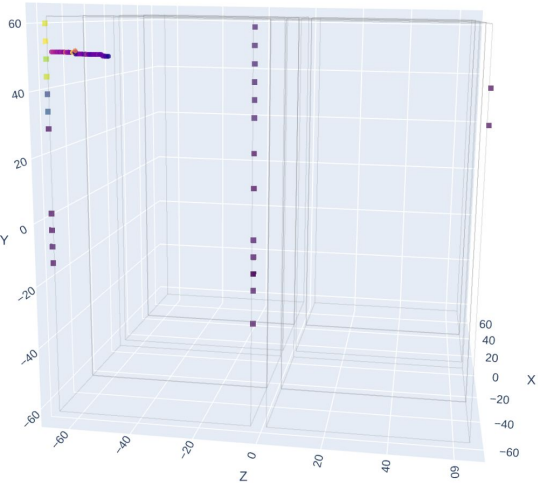
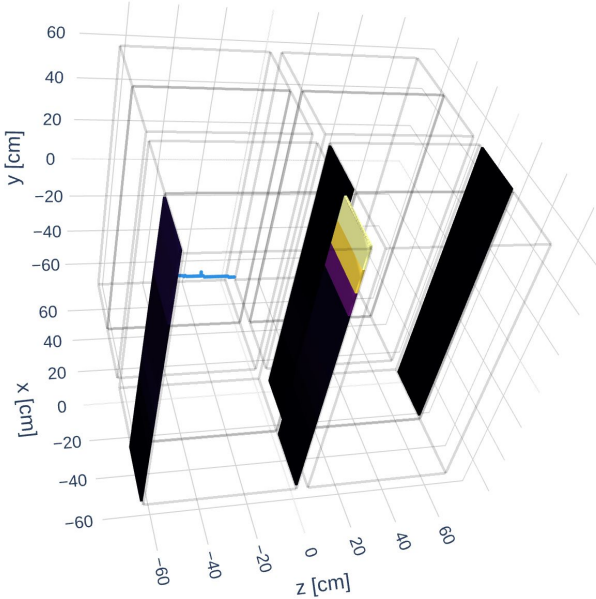
# Light mapping issues for flash matching



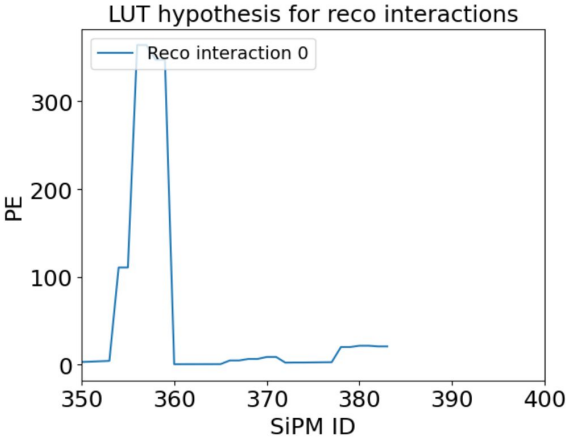
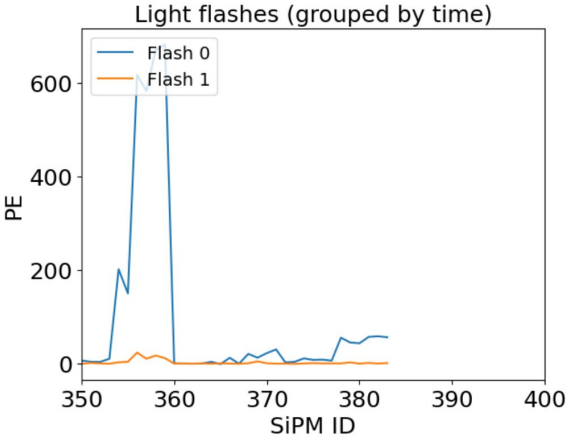
- SiPM hits are on the right side
- Flash pe also seems to be at the right SiPM ID
- Current hypothesis:
  - SPINE geometry is wrong (Not a huge issue for what I am doing now)
  - Issue in how I extract LUT info
  - Both these issues are probably connected?



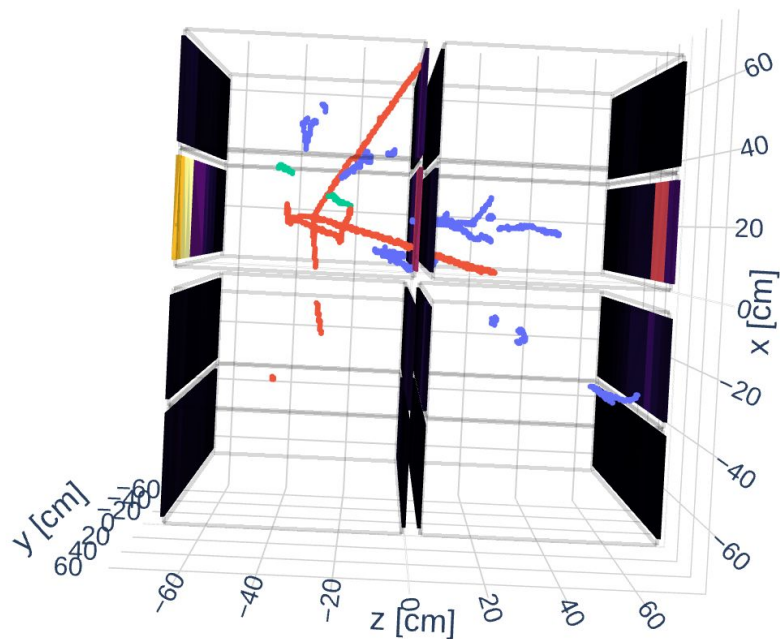
# Light mapping issues for flash matching: fixed!



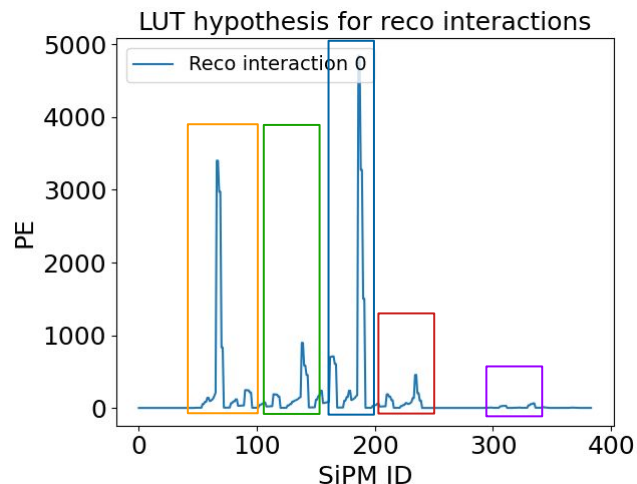
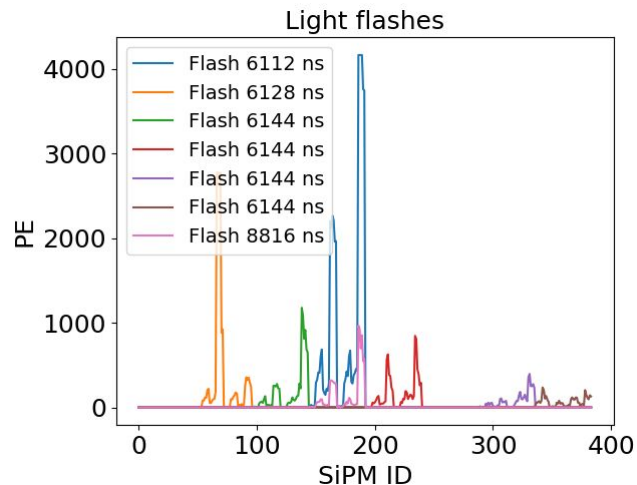
- SPINE geometry still needs to be fixed!



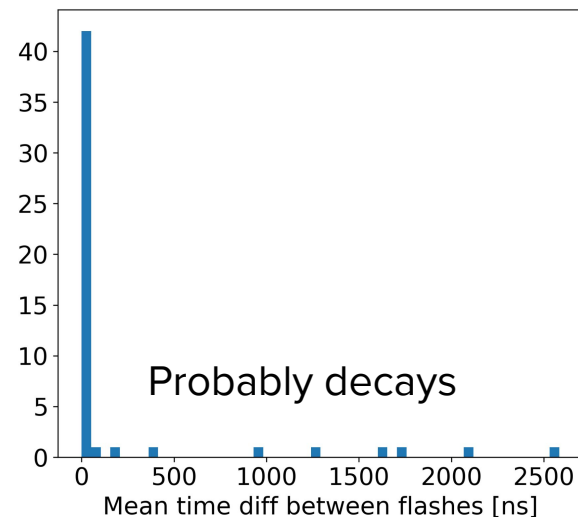
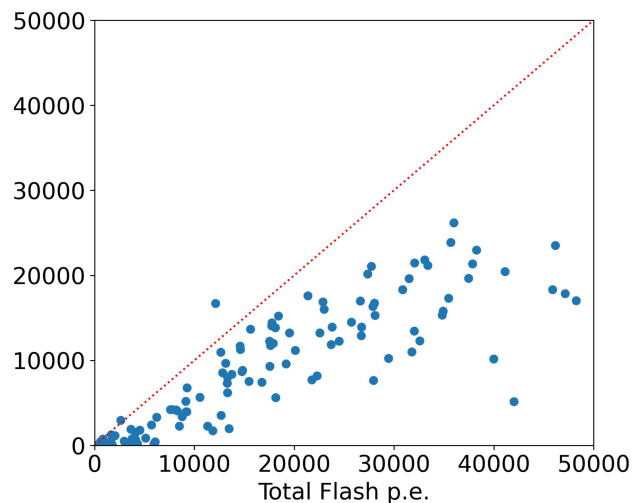
# Flash matching: plans



- Plan to obtain best-matched flash for each TPC
- Simple  $\chi^2/\text{ndf}$  (shape matching). Other ideas?

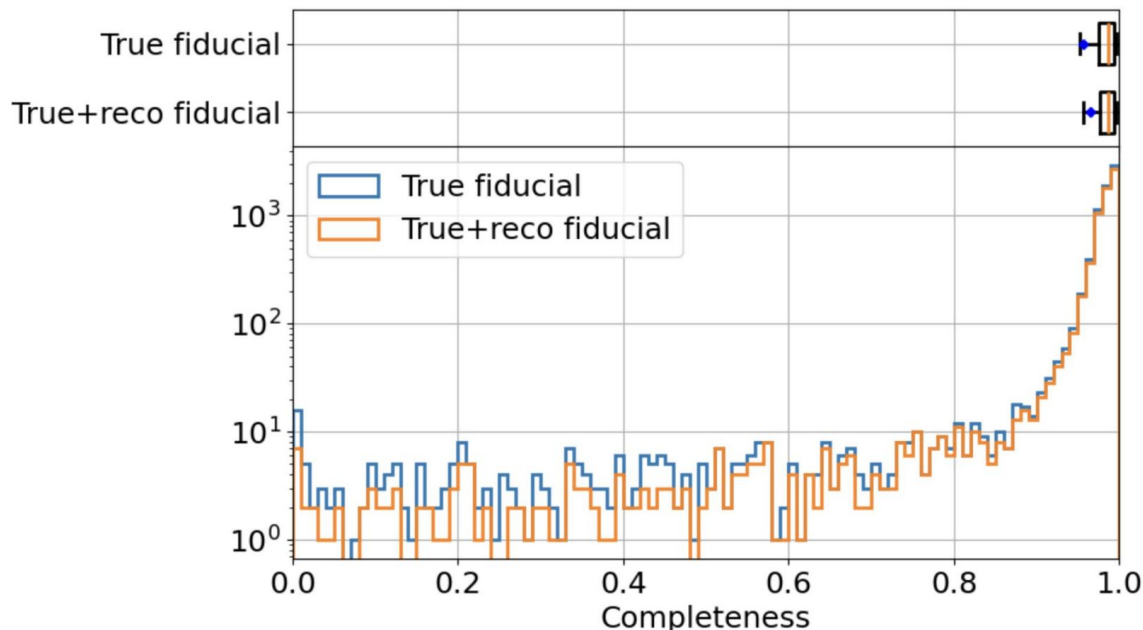


# Flash matching: diagnostics



- LUT prediction still lower (will need more studies on contained events, maybe later)
- Probably use  $< 100$  ns for threshold

## Flash matching: near-future plan



- Code the matching part by TPC
- Check with more stats on 2x2 (~10 files) and quantify it with the completeness metrics
- Do it on ND-LAr and try to quantify it with the completeness metrics