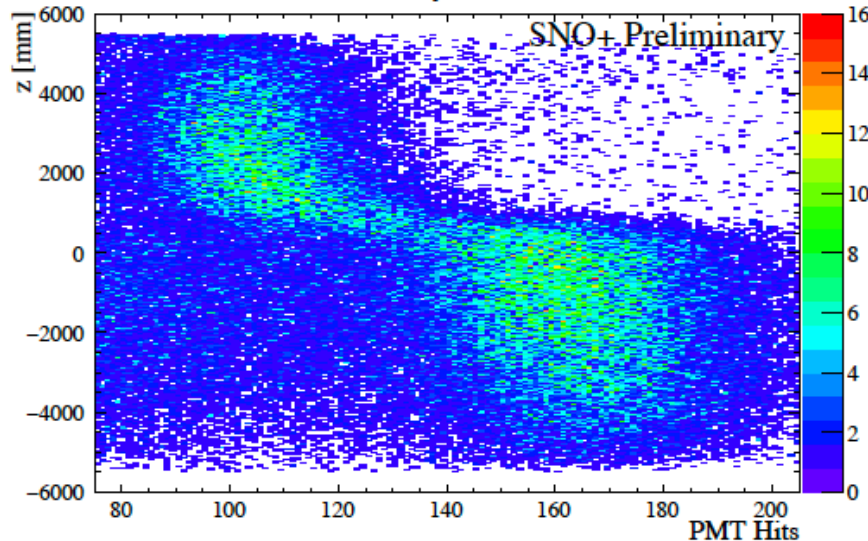


# SNO+ Highlights

21 July 2023

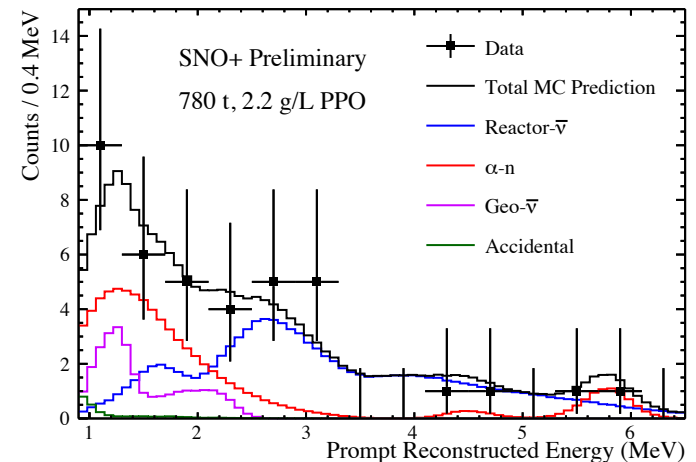


- SNO+ Status

- Taking data: levels of U/Th in scintillator are within expectations
- Added light booster + stabilizer to liquid scintillator
- Commissioning the Tellurium purification plant
- Expect to start loading Te for Double Beta Decay phase in 2025!
- Preparing to triple Te soon after

- SNO+ @LIP

- Coordination of overall analysis (VL) and antineutrino group (SA)
- New results on reactor neutrino oscillations coming up
- New student@Coimbra, working w/ NB on reconstruction
- Preparing pre-Tellurium calibrations



# DUNE Highlights

- ProtoDUNE status

- Liquid Argon available, filling of PH-HD almost complete
- Data taking, with beam, cosmics and calibration systems, all through the summer
- Argon moved to PD-VD in the fall

- DUNE

- cavern excavation complete
- installation to start in 2027

## Laser safety tents @ ProtoDUNE



Periscope 2  
(P2) / Endwall

- DUNE@LIP

- Calibration Interface Board tests at Coimbra
- Finalizing control software
- ProtoDUNE calibration campaign starting May (several group members at CERN + 6 month stay PhD stud.)
- Ongoing sim/data analysis of Bi source data, planning laser
- Started physics studies: energy scale non-linearity due to recombination



# Neutrino Physics Group @ LIP

- Current funding:
  - PTDC SNO+ grant 230 k€ (3 yr, ending Nov. 24)
- Funding applications:
  - CERN fund DUNE grant (2yr)
  - PTDC SNO+ grant (3 yr)
- Personnel news
  - New SNO+ Phd Student started 2023, Coimbra
  - Ongoing DUNE PhD student, MSc students
- Key coordination roles
  - SNO+: Analysis coordination, backgrounds (VL); antineutrino physics (SA); Source Review, Exec. Comm. (JM)
  - DUNE: Calibration and Cryogenic Instrumentation Consortium, EB (JM)
- SWOT
  - S: key contributions and coordination positions, leveraging on high standards of LIP workshop and det. lab
  - O: taking data in SNO+, reactor and solar neutrino physics; ties to LANL and CERN via ProtoDUNE
  - W: still top-heavy, but improving
  - T: contract of key person ending soon, funding delays