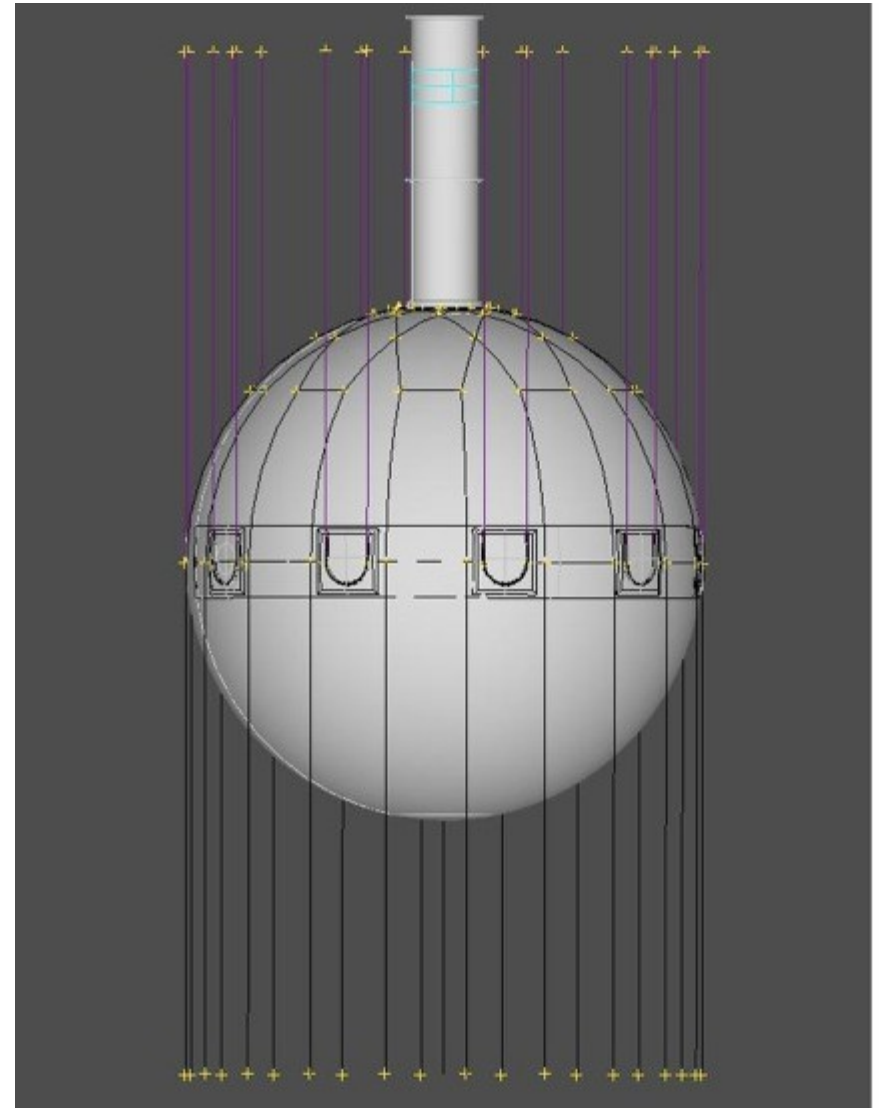
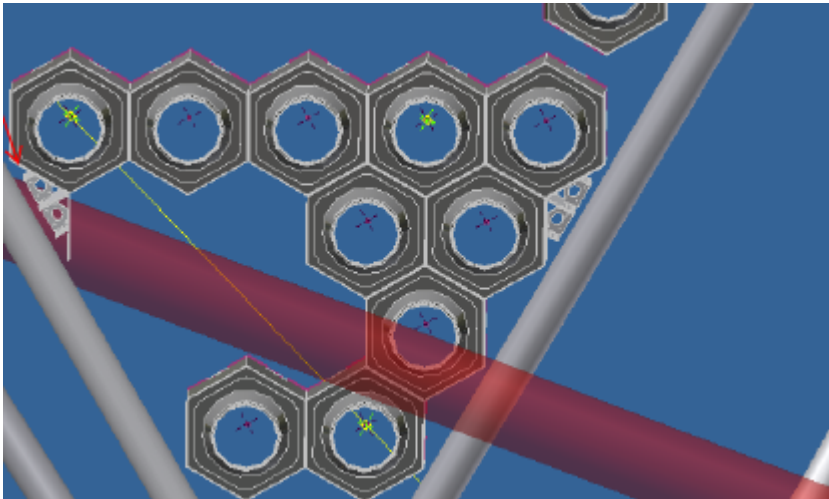




SNO+ Neodymium Phase

P G Jones, Oxford, p.jones22@physics.ox.ac.uk

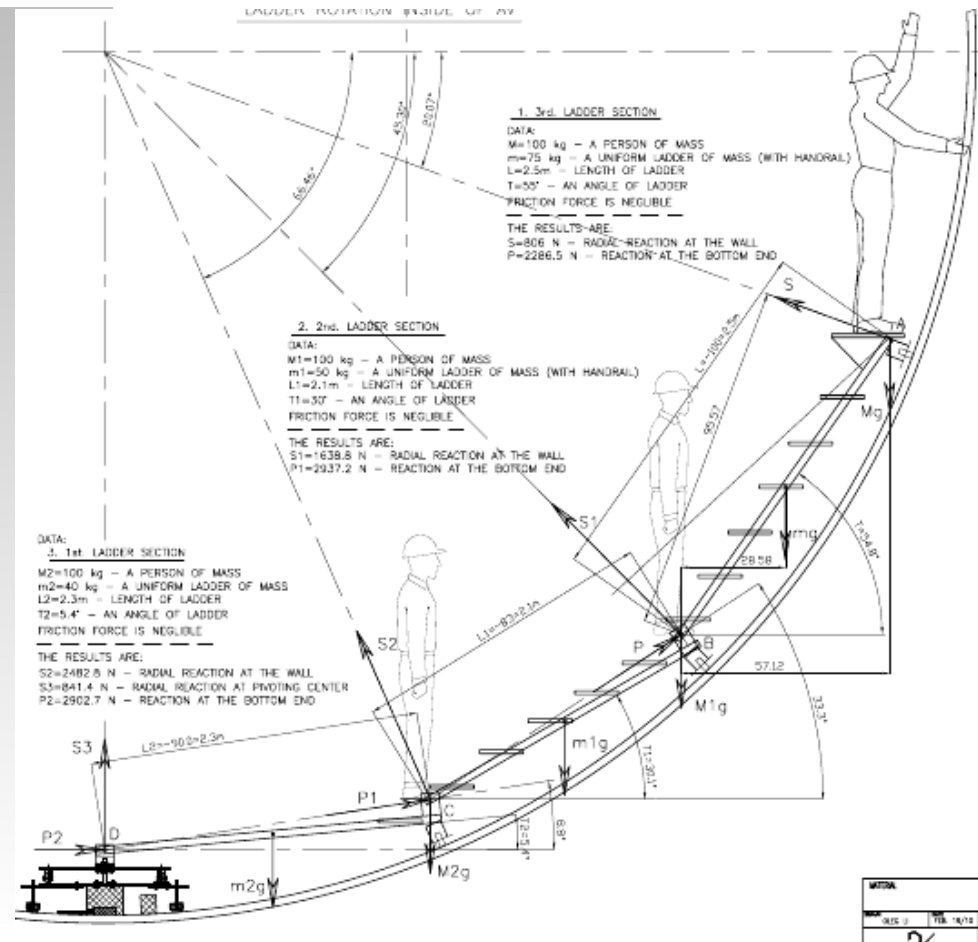
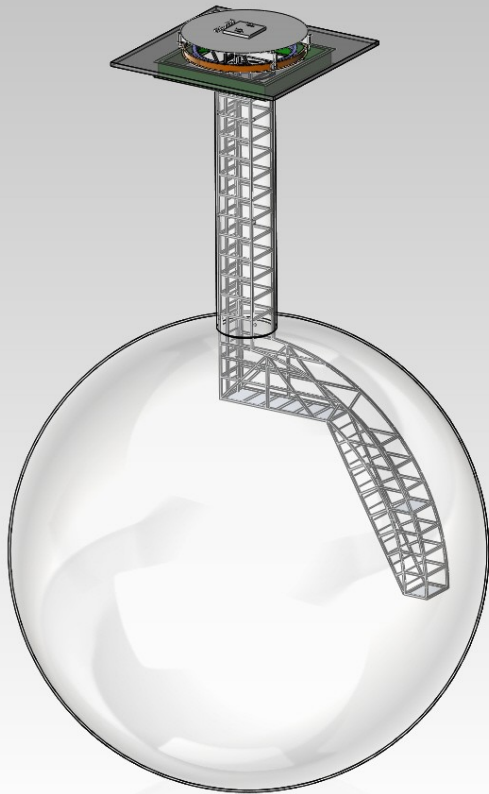
- New Hold down ropes



Current Detector State



Further work



WALSH
 DATE: 11/14/12



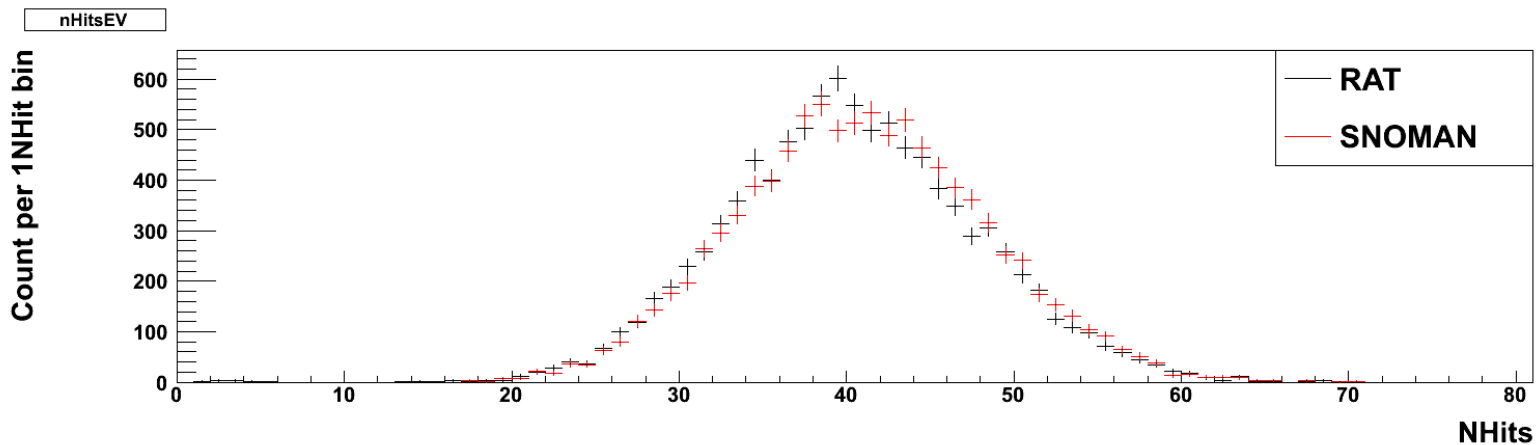
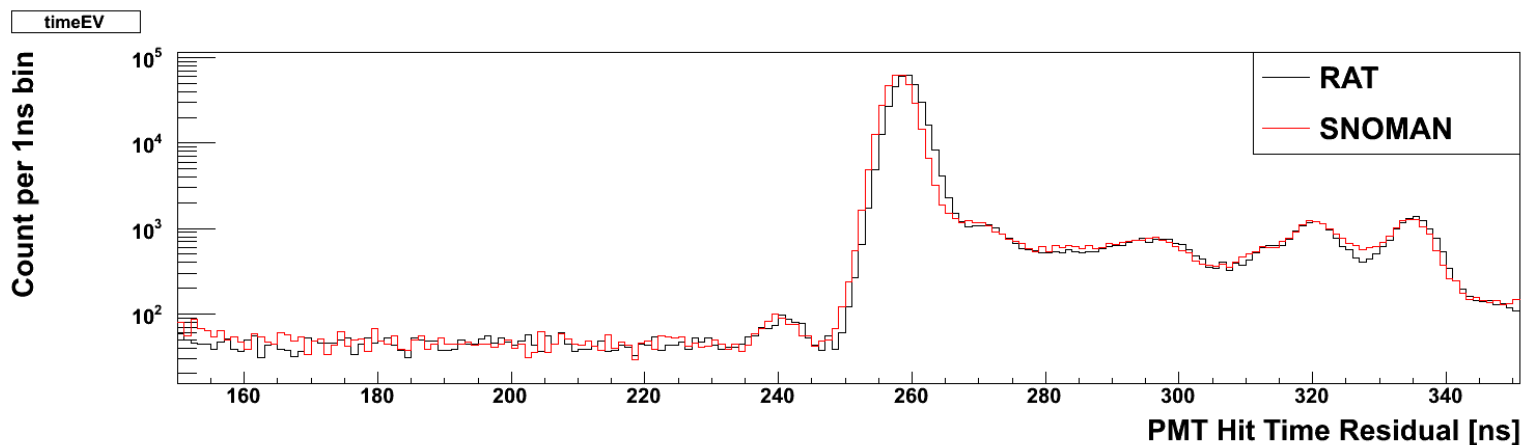
Cavity Schedule

- Detector commissioning start of 2012
- Water fill early 2012
- Scintillator fill late 2012
- Neodymium phase starts in 2013



New Monte Carlo (RAT)

- Comparison to SNO Monte Carlo (SNOMAN)



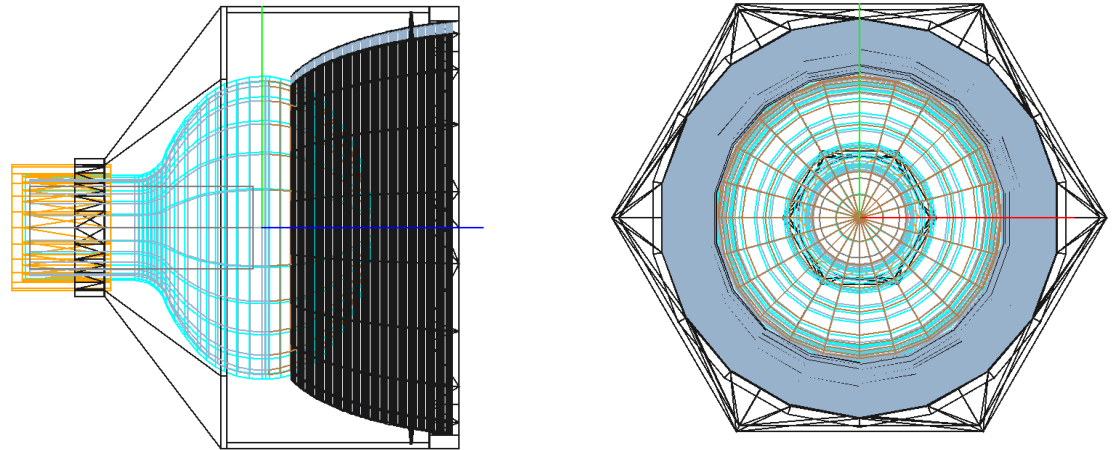


UK Monte Carlo Effort

- New PMT Optical Model and Geometry
- New Scintillation physics
- Event Reconstruction
- Background Rejection

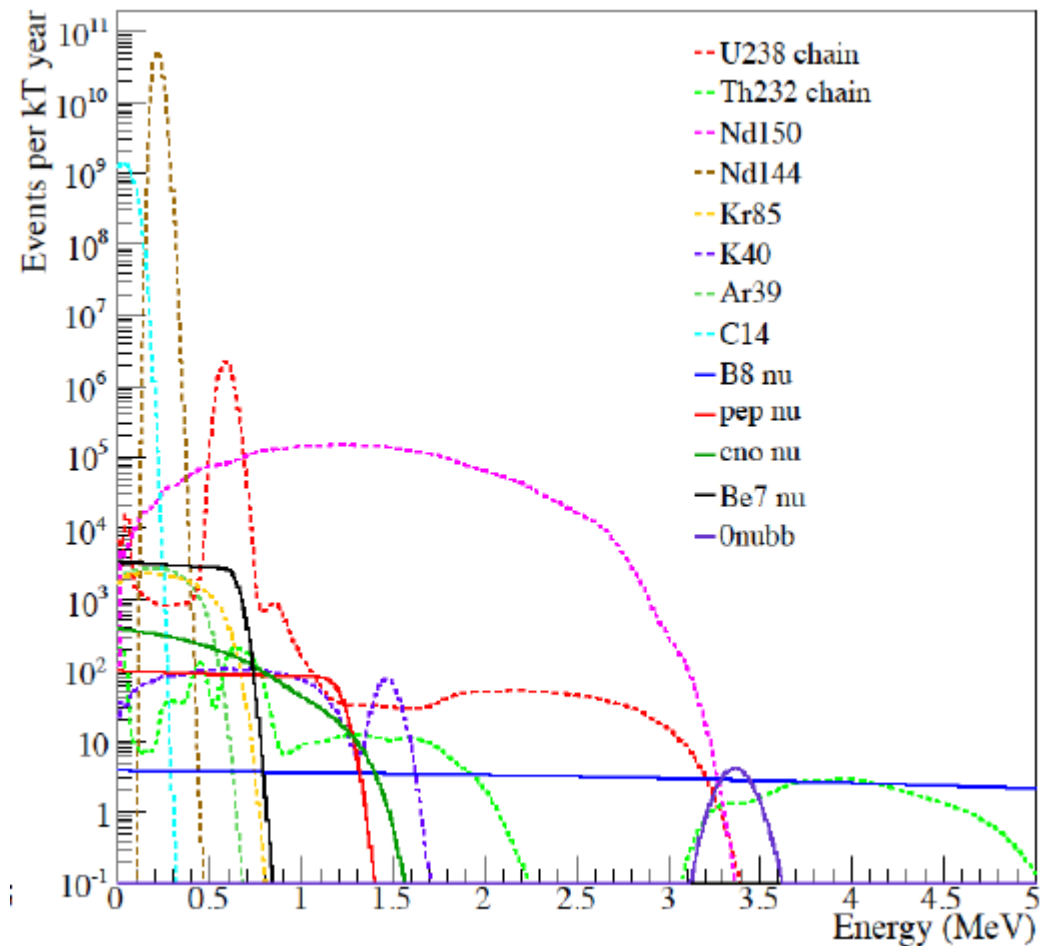
PMT Optical Model

- New PMT Optical Model for SNO+
- Shown is the SNO+ PMT and Concentrator



Neodymium Phase Backgrounds

- Not all backgrounds shown





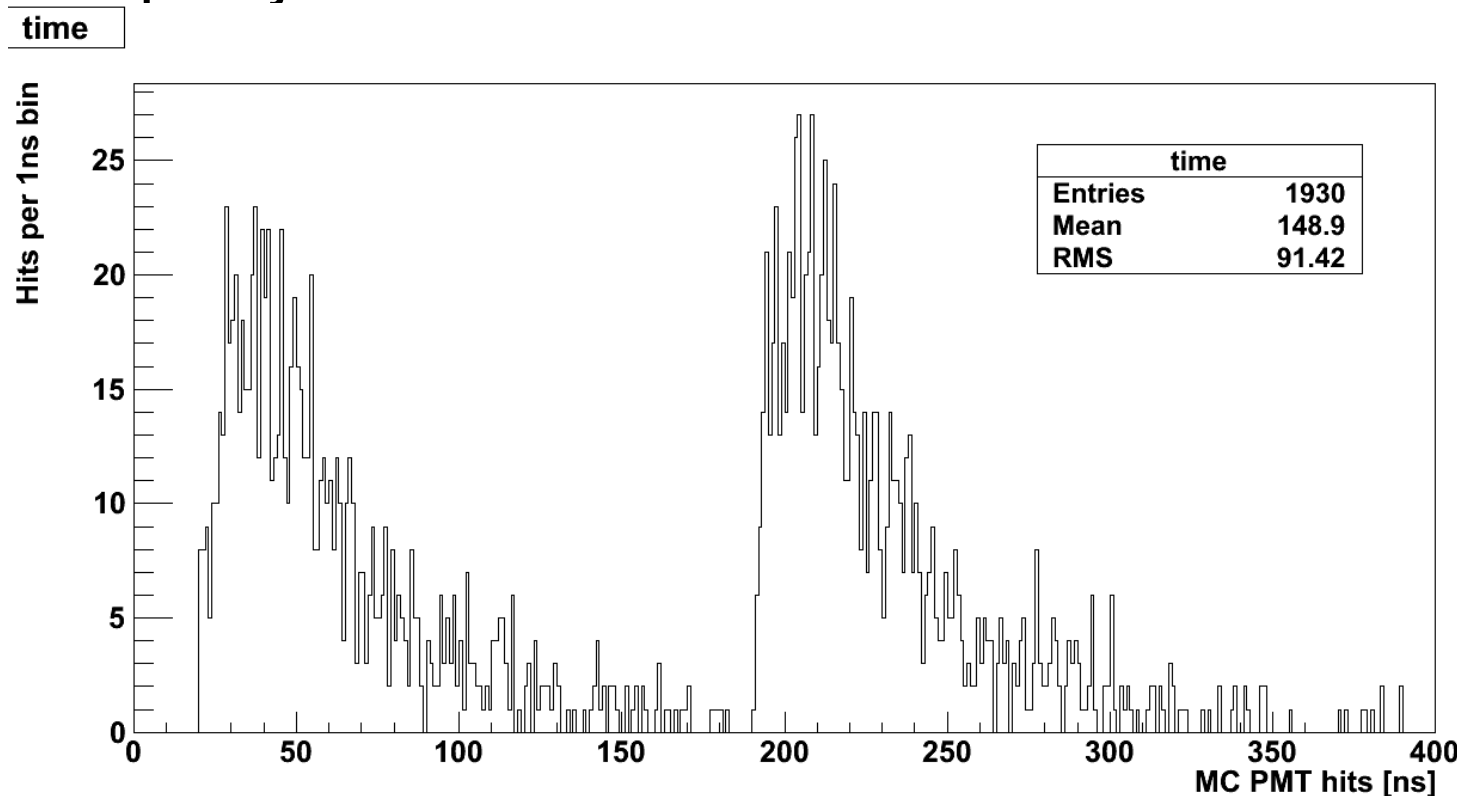
Software External Background Rejection

- External backgrounds by position
 - Fiducial Volume cut
 - Near the acrylic vessel has special optics



Software Internal Background Rejection

- Internal backgrounds predominantly pileup
 - Need Pileup Rejection





Summary/Questions

- Lots of work on going
- First Neodymium Phase data in 2013