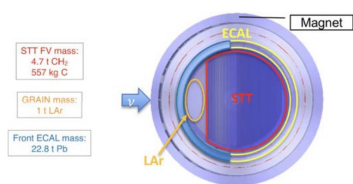
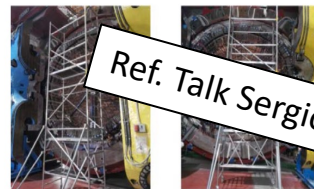


Prossime Tappe

SAND Milestones



SAND, a multipurpose detector with an high-performant ECAL, light-targeted tracker, LAr target, all of them in a magnetic field



Ref. Talk Sergio LNF 7/11/2022



Cleanup and removal of non re-usable instrumentation

- Design review of Yoke + Magnet + ECAL and related installation procedures : **April 2023**
- Preliminary design review of STT : **November 2023**
 - Prototyping **through 2024**
- Preliminary design review of GRAIN : **April 2024**



Long-baseline oscillation analysis: major update

Ref. Talk Sergio LNF 7/11/2022

- Goal: Complete respin of oscillation sensitive simulation & algorithmic reconstruction, with multiple including ND-LAr+TMS and SAND
- Successful workshop at CERN August 15-19: progress toward updated cross section uncertainty model, ND sample integration, new fitting techniques
- Much work remains: systematics, systematics, systematics

Second Workshop at LNF in Spring 2023

| | Stage 1 Geo + GENIE | Stage 2 GEANT | Stage 3 Detector Response | Stage 4 Detector Reco | Stage 5 Analysis files |
|----------------------------|---------------------------|------------------|---------------------------------|-----------------------------|------------------------------|
| ND-LAr | done | done | full | ML-Reco | CAFs |
| ND-LAr + TMS | done | done | partial | ML-Reco + Hough/A* | CAFs |
| TMS Only | done | done | cheated | Hough/A* | CAFs |
| ND-GAr | done | done | full | GArSoft | CAFs + GArAna |
| SAND (ECAL, STT, GRAIN) | done | done | full | Fast and full mixed | CAFs |

More from Chris Marshall, tomorrow



e inoltre ➤ IPR (*) -ND (DOE) Q1- 2024

Far Detector:

- FD1 Final Design Review Jan 2023
- FD2 FDR Feb-Mar 2023
- Prossimo Collaboration Meeting CERN Jan 23-27, 2023

(*) Independent Project Review

...arrivederci (DUNE-Italia Annual Meeting) a
Lecce, Ottobre-Novembre 2023