

MINUTES FROM GRAIN WORKING GROUP MEETING

MAY 26th 2022

The meeting was focused on the discussion about the NEAR THERM ACTIVITIES, after the

In yellow the item identified as important/urgent for the next months (by July, September)

- SIMULATIONS:

- Mask configuration in GRAIN: define a first geometry with masks
- Lens configuration in GRAIN: 38 sensors as in the slides (with 10 cm between lens and sensor)
- ARGON light emission:
 - Time distribution
 - Xenon doping simulations
 - Dynamic range

Comments: search for people for this item: Matteo V., ...

- Simulations for cryostat dimensions (see below)
- Simulations for electronics:
 - For prototyping: implement ALCOR performances and TOT response
 - For GRAIN: define time window, dynamic range, ..
 - Simu for optimizing the time window

Comments: search for people for this item: Valentina,...

- Reconstruction algorithm development
 - The groups will continue on this item as usual

- PROTOTYPES

- Mask Prototype: design and built the prototype
- Lens prototyping: test in water, cryogenic tests
- Test in ARTIC: set up light source, production of mechanics, design muon tagging system, provide single pixel acquisition system for scintillation time distribution

Comments: Search for people to be involved in CRT set up and in the single pixel acquisition system

- Electronics: the schedule was shown.
 - ASIC Wire-bonding, (warm and cold) matrix calibration

- think about flange feedthrough
- schedule TPB deposition (after first tests)

- CRYOSTAT:

- Keep current design but increase the L dimension to reach 1 ton LAr mass with current lens geometry (check the outer vessel with an external company)
- For simu/physics group:
 - think about the thickness requirement
 - think about different ellipse ratio