

Dec 4

Wednesday, December 4, 2013
2:02 PM

Chris Hays, Mark, Kabir, David
Jack Thomson, Geoff, Josh

- * David - ribbon cable?
 - used to hook up patch pannel to ADC.
 - wants that cable
- * Preamps: all channels have proper gain & rise time with 10% of calculation
 - 60Hz noise: 100 μ V channel-dependant.
 - need better power supply
 - have to study shielding & grounding.
- * Integration -
 - working w/ student & Mark on moveable mount for SF & target.
 - design for stationary mount
 - at ORNL next week - done w/ finals.
 - Jack Thomson work with Josh
 - disassembly / assembly procedure.
 - meeting next week:
Dec 11th all afternoon. - Mark to call mtg.
- * B-field - Libertud not present
 - how far upstream?
 - a) Polarizer field b) longitudinalization c) NPDR field
 - need a model. - Josh: post for next meeting.
 - * Chris: ask Larry best way to PDF model.
 - David: issue fallen in between cracks

* Chris: email distribution of beam
mainly horizontal direction

- * RFSF - sent STL file for manufacture
1 month delivery - early Jan
uploaded pictures on the wiki
- will work on RFSF site of wiki
- ABS white return coils. each coil: 5.5 lbs.
put in 5th grooves after all!
- inner cyl drawings sent to UT shop.
hopefully done before Christmas
- outer Al shell: issue of mounting.
- pickup: audio, lockin, AFG, SR560
- set up slew rate
Seppo: modulate sine wave by square
NPD γ : around 400 μ s?

- * Target: stringing n⁻³He wire frames
27 done, 10 left 33 needed.
- small parts to assemble.
- won't make frame stack before leave
gone Dec 12th - mid Jan.
- cleaning procedure worked out
- 60°C baking need to remove H₂O.
- soldering procedure for readout board?
- HV power supply yet? no. batteries!
NPD γ : 950 V \rightarrow 1200-1400 n³He 10 μ A
Seppo has low ripple power supply - grounding?

- * Preamps: Kabir established all channels work
noise = 25 μ V on ADC, 100 μ V on preamps.
meeting with engineers this morning
- many suggestions to try.

may be figured out in a couple of weeks.

need DAQ & SF to test soon!

connectors ordered

Al box needed \Rightarrow will get one tomorrow

* DAQ - T_ϕ

128 kHz, 8 μ s., digitize T_ϕ

8 μ s jitter is too much for counting statistics.
will call Peter Milne tomorrow.

* n-3He PV asym starts out -, changes sign.
David: next week presentation on asymmetry.

* Geoff: time frame for getting things mounted
Jan 8/9th technical readiness review.

can we be ready to install/safety by July?

- need rough rad. calculation.
- need to show there aren't other issues.
- tritium will leave lab in target chamber

PRAC meeting before destructively remove LiH_2 target
will validate entire outyear schedule.

- NPDR, n³He, Nab
- experimental issues raised there
 - backgrounds, false asymmetries.
 - false asymmetry test would be very compelling.
- late Feb/early Mar

May/June: complete radiological analysis
- no one identified for MCNP model?

IRR: after assembled - early September?

- premeetings to demonstrate radiological readiness