

Tasklist

From HallBWiki

RG C TO DO:

1. Target material: irradiation (new UITF?; cold/ultracold? Moving around and/or rastering? Cells, isotope analysis, weighing, dilution factor, microstructure? (UTFSM->heat flow optimization)
2. Raster system (speed, shape, amplitude/range, position of magnets, driver, readout/calibration; induced SL? Noise? "Sheet of Flame"?) -> ? Also check with HD-Ice
3. Møller polarimeter system (readiness; optimize running, accuracy) -> RG A
4. rest of beam line (BPMs, harps, lumi (SLM?), steering) -> Stepan Stepanyan, FX, ?
 1. Yuri Sharabian: New TRD made of $0.6 \mu\text{m}$ Carbon sheet, can measure intensity, position, and energy!?!
5. Møller shield (with and without FT; optimize for rastering) Full background simulation ->Maurizio + Stepan, Volker and Josh Tan; Angela? Tony? Raffaella? Silvia?
 1. 2 different set-ups? Double cell, larger diameter with full Møller shield vs. single long cell, smaller diameter raster with FTON (less current, too)
6. Downstream: FC acceptance? (Solenoid focus) -> RG A
7. Solenoid field map: Initial measurements upon delivery; permanent Hall probes on strategic surfaces? $B_{\text{tot}}(z)$ at 10^{-4} (NMR?SQUID?) on axis; complete spatial field map after KPP (remove CT).
8. full implementation of polarized target into GEMC, geometry and Common Tools
9. Full simulation of rates, acceptances, resolution, z-separation (-> dilution), backgrounds, systematic errors (e.g., beam-helicity tracking efficiency due to DSA in Møller scattering): Silvia N, Silvia P, Raffaella, Angela, Dariah S.; T. Forest)
10. We need Common Tool Experts to develop analysis procedures
11. Run plan (2.2 GeV? 6.6/8.8 GeV? In/outbending? Reduced/full Torus run? ancillary runs? beam current scan; no field run. optimized target operation – polarization reversal, anneal, exchange. Completely MT, MT with cells, grid of C foils,... permanent foil. Permanent or intermittent 14N, H?) - Silvia N., P. Bosted, S.K.
12. Geometry, integration, design drawings, readiness review, CALCOM
13. what do we need to do to measure DF precisely? How about $\text{Acc} \cdot \text{eff} \cdot t(H) \cdot Q$?
14. Use BH (radiated elastic) to cover $\text{eff} \cdot \text{acc} \cdot \text{Pb} \cdot \text{Pt}$ over a wide kinematic range?
15. Pol. measurement with elastics (quasi-elastics) exclusive, BH.
16. SIDIS: Use multiplicities as function of z , p_T , ϕ (doesn't require measuring cross sections NOR dilution factor; a LOT cancels out including RC effects on e- kinematics.) In principle, can use Bayesian analysis with multipoles $\sin(n \cdot \phi)$, $\cos(n \cdot \phi)$ - run MC for each multipole (including const) separately, including RC, compare to measured moments.

Retrieved from "<https://clasweb.jlab.org/wiki/index.php?title=Tasklist&oldid=48369>"

- This page was last modified on 1 November 2016, at 11:00.
- This page has been accessed 5 times.