RITLC Spin Plan Discussion

- change document to DOE Jan. 31, 2005
- committee and RITLC Spin Collaboration
- proposed schedule
- proposed outline of document
- what do we need to know?

Committee:
STAR: Les Bland, Bernd Sueur, Steve Vigdor
Phenix: Matthias Perdekamp, Nashito Saito, Yuji Goto
Theory: Werner Vogelsang
RITLC: Mei Bai, Wolfgang Fischer
Chair: Gerry Bunce
Change

1. Science, also context
   → research plan

2. RHIC performance requirements

3. resources needed, timeline

4. impact of "constant effort" budget
   → 5 weeks physics/year (10/12 yrs.)
   → 10 weeks

→ really about 500 G0V plan

→ opportunity to revisit spin plan, emphasize work so far, develop plan beyond F+W!

→ opportunity to think about beyond the baseline

→ 1st step toward new Nuclear Physics Long Range Plan
The RHIC Spin Plan Group
and the RHIC Spin Collaboration

- the Spin Plan Group is responsible for
  generating the document

- RSC is responsible to develop the plan

- both must contribute to both for this
to be successful.

- "authors" will include everyone who made
an important contribution

- the Phenix and STAR collaborations are
represented by Deputy Spokespersons
and will also "weigh in"

- see schedule

- all information, meeting schedules,
  notes, drafts on spin discussion page.
Proposed Schedule

Dec. 2  - telephone meeting
Dec. 6  - collaboration meeting
Dec 6-17 - homework on major issues
Dec. 17 - discuss major issues (telephone)
           - machine expectations
           - Phenix and Star timelines for W hardware
           - strawman spin plan
Dec. 18 - Jan. 6 - write 1st draft
Jan. 7   - discuss 1st draft (telephone)
Jan. 8-13 - write 2nd draft (collaboration meeting)
Jan. 14  - discuss 2nd draft (collaboration meeting)
           - circulate 2nd draft to Phenix, Star collaborations
Jan. 20  - complete document (telephone)
           - circulate to lab management, informally to DOE (?)
Jan. 27  - discuss any recommended changes
           - final document.
Executive Summary

Case for RHIC Spin

- All physics presented here,
- Includes work so far
- Longitudinal and transverse
- "Baseline" and future programs
- Complementarity vs. DIS fixed target
- To eRHIC
- Other spin physics at RHIC (elastic, ...)

Acceleration

- Present accomplishments + future
- Expectations with 10, 5 week scenarios

Experiments

- Present accomplishments (hardware),
- Required resources, upgrades, plan

Spin Plan Schedule

- 10, 5 week plans
Major Issues to Resolve

1. What to expect for $P_1 L$?

2. Sensitivity goals for $\Delta G/G, W$?
   - both theory and pragmatism!

3. Sensitivity goals for transverse spin?

4. Experiments - required hardware; revisit sensitivities; where do proposed upgrades fit in to plan? Can we handle highest $L$?

5. Physics beyond the baseline!
   - $\Delta Z/\xi$; fragmentation; searches $CP$; $W+$charm (present + future programs)

Not an "issue", but how can we concisely (elegantly) present sensitivities for different probes - for example $A_{LL}(\pi^0, jet), \tau, \tau + jet$; different $M$ coverages; $\sqrt{s} = 200, 500$?