The Polarized Proton Jet for RHIC

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The view from the RSC

The view from BNL

The view from DOE

Where are we?

- The MOU
- The CDR
- The Timetable

The view from the RSC

- The jet is an integral part of the polarized proton effort
- It is designed to provide the absolute beam polarization calibration to the desired 5% level.
- It is designed to make a measurement within a 1 store time interval
- It will be utilized to calibrate the fast p-Carbon CNI polarimeters at any energy.

The view from BNL

- The goal of a 5% measurement was set by T. Kirk
- The concept was introduced into the FWP to DOE in FY 2000
- A detailed entry with cost estimates was added to the FWP in FY 2001 and the projected FY 2002 with $750k in each
- We had an internal discussion with T. Kirk in June 2001 to discuss the minimal needs in FY 2002 which were set to $500k
- This assumed that the sextupoles will be ordered in FY 2001

The view from DOE

- DOE accepted that Wisconsin redirect its efforts in support of the Jet.
- DOE's B. Tippins supported the concept and a draft of the MOU was provided during a meeting in Germantown attended by G. Bunce, M. Mutragh, and T. Kirk.
- J. Simon-Gillo approved a request to redirect FY 2001 equipment funds from the BNL medium energy group to procure the sextupoles. This was intended to jump start the process.
- On the other hand, there were no funds earmarked for the Jet in the DOE supplemental allocation to BNL late summer.
- With the FY 2002 budget, it is not clear that we have funds earmarked either.

The MOU

- A draft was written and circulated to the principal institutions
- While the feedback was generally positive, we had two potential stumbling blocks:

  IUCF has significant expertise. Support for personnel is an issue that has yet to be resolved.

  There was no response from NIKHEF. Recently I re-connected with Jo van de Brand and sent him the MOU and request for equipment that were part of the discussion.

The CDR

- Work began on a draft of the CDR by G. Bunce
- E. Stephenson (IUCF) as promised carried out a detector simulation and forwarded the results to be included in the CDR.
- E. Stephenson provided his data and code to A. Bravar (BNL) who will be carrying this to completion. He will become the resident expert.
- We need to add a section on the ABS and Breit Rabbi polarimeter

Timetables

Complete the CDR by the end of this year

Develop a project cost estimate and resources

Subject the process to an internal design review

Start parallel efforts at the various institutions in particular at BNL

BNL:

- Assign an overall project engineer (G. Mahler)
- Design the holding field magnet and its cancellation
- Engage the controls group
- Engage the vacuum group
- Engage the source group
- Start work on a staging area and design of the conventional construction and facilities support.