Timeline Discussion

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for
RHIC Spin Collaboration Meeting X
RIKEN BNL Research Center

Makarsi 6/17/02

Polarized Jet Target

Game Plan, Schedules, Funding issues

Boundary Conditions:

- Funding began in earnest this fiscal year from the following sources:

Reprogrammed Medium energy physics:	$ 75k
RHIC Detector capital funds	$300k
Direct DOE NP funds	$275k
Totals	$650k

- DOE NP may be able to provide some additional funding this FY.
- We have requested another $500 (conventional const)
  $200 (RHIC compatible Controls)

The Promise:

- Design, contruct, test, the Jet awat from RHIC
- Install the Jet in the tunnel by the beginning of the Run October 2003

The plan:

- Run on all cylinders with parallel efforts where possible

Wisconsin

Overall design/ Coordination
Sextupoles completed and RFQ placed with vendors
RF systems purchased and tested w/ Wisc. Source
Breit Rabi designed built and tested w/ Wisc. Source

BNL C-AD

Holding field magnet design and build
Magnetic measurements / (w/ RF units?)
ABS/ BRP/ Target chamber vacuum housing and support
Over all mechanical systems and pumping
Dissociator, design construction and testing

BNL-Spin phys/RBRC/Instrumentation/ IUCF/ Yale
Silicon recoil detectors and testing

BNL- Spin phys/ ITEP / Yale
DAQ

The schedule Milestones

- Funding started February 2002
- Design and construction of various components/ testing by January 2003
- Develop a test bench at the BNL – LINAC area August 2002
- Start work on the Jet controls November 2002 for delivery May/June 2003
- Subsystems arrive at BNL in the January/ February, 2003
- Assemble and test jet components at the LINAC through August 2003
- Conventional construction and support
- Move Jet in one piece from LINAC and Install in RHIC September 2003

Manpower at BNL C-AD

- Overall mechanical design and assembly
  - Lead mechanical engineer (George Mahler) onboard
  - Design shop support as required
- Magnetic field analysis
  - Wuzheng Meng
  - Magnet measurement group
- LINAC/ injector group
  - Anatoli Zelenski, physicist
  - Russian technical help (two people)
  - Engineering, John Ritter
  - Technical support (1/2 FTE as needed)

  Design and build the dissociator
  Prepare the test bench at the LINAC
  Help with the assembly and testing

  Group will assume responsibility to operate and maintain the jet

- C-AD Vacuum
  - Dick Hseuh (engineering design and consultation)
  - Engineering to design the vacuum controls

- Controls Group

  Engineering to develop and integrate the jet controls

- Beam Instrumentation group
  - Technician support as required during installation at RHIC

Goals:

- Install in RHIC, provide an early calibration of the local polarimeters to the 10% level.
- Refine and improve to attain the 5% absolute beam polarization calibration.