

# Comments & Perceptions

*Bill Christie*

*RHIC Beam Experiments Workshop*

*September 27, 2002.*

Listening to the presentations on the first day of the Beam Experiments Workshop a few things caught my attention. I offer them purely FYI.

1.) It doesn't appear to me that a clear distinction is being made between what I believe to be the definition of "Beam Experiments" and "Beam Development"

- Examples: Angelika's Collimation studies, Christophe's transition jump studies, Mei's Spin flipper studies, S.Y.'s Pressure rise studies, and perhaps Steve's Chromaticity studies, all seem to me to be items more appropriately called Beam development.

2.) I think that the prospects that all *necessary* "beam development" is complete by January 3rd (I.e. after 2 + 3 weeks) are vanishingly small.

- Would it make sense to schedule a period/week (e.g. 8+4 hrs) for "Beam development"?

## Comments & Perceptions (2)

3.) Collider parameters of interest to Users are:

Luminosity

Backgrounds

Diamond length

Reliability

- Lifetime
- Uptime
- Reproducibility

Polarization

It would be beneficial if Beam experiment or development proposals indicate which, if any, of these parameters will be improved by the study, and an estimate of how much (e.g. Pressure rise study could give ~25% increase in L)

In some perspectives the biggest problem/issue with RHIC is its reliability. I didn't hear any proposals that, to my naïve ear, seemed to address this.

## Comments & Perceptions (3)

4.) Admittedly one can look at this from various angles, but in what is perhaps the most justifiable method of accounting, the cost of a single “Beam Experiment” period (8 + 4 hours) is \$500,000.

29 wks - 5 weeks - 10 wks (two modes) = 14 wks = 100 M\$

⇒ 1 day of experimental running costs 1 M\$

The question of who approves *actual* “Beam Experiments” should not be taken lightly. For \$500,000 most people would expect that a concise proposal is written, reviewed, and approved.

If there is a series of 14 Beam Experiments (as opposed to Beam Development) carried out, this is a 7 M\$ decision (more than the entire STAR Operations budget). My guess is that Tom Kirk is the person that has to approve this.

⇒ Categorize carefully and deliberately between “Beam Experiments and “Beam Development”.