

STAR Input to RHIC Retreat 2002.



W.B. Christie
RHIC Retreat 2002
March 4-6, 2002.

Outline

- Progress on comments from RHIC Retreat 2000.
 - Input for RHIC Retreat 2002.
-



Progress on comments from RHIC Retreat 2000

- Try and evolve to less “Dynamic” day to day scheduling
 - See input for RR 2002
- More accurate information from MCR to experimental shift crews
 - ▣ Big improvement from previous year’s physics run.
- Make more efficient use of access periods
 - ▣ Big improvement from previous year’s physics run.

Thoughts for RHIC Retreat 2002



- **Scheduling:**

- “As the day to day operation of the collider with beam gets more stable and *predictable*, it would be beneficial to move to multi day plans that are followed if possible, and move away from the shift to shift (hour to hour?) dynamic planning” (text from RHIC 2000 Retreat).
- Work on agreeing upon, and then following (often difficult) a week based schedule for the commissioning and Data taking phases of the run. Adapt schedule as necessary once per week.

- **Develop a “Strategic Plan” before the run starts**

- Utility is to enhance longer term planning between Collider and Exps.
- Some possible examples of Strategic Plan contents:
 - Collider beam requirements/goals (luminosity, beam lifetime, polarization, energy, species, etc.).
 - Planned running parameters (e.g. # of bunches, β^* , Magnetic field configurations for detectors, etc.). If open questions, a plan to answer them (e.g. # of bunches) as early as possible.
 - When during the commissioning the experiments can expect various amounts of “uptime” for Detector commissioning and Data production.

- **Have a scheduled access (8 h?) for collider and Detectors once per week.**

Example of “Strategic Plan” Information

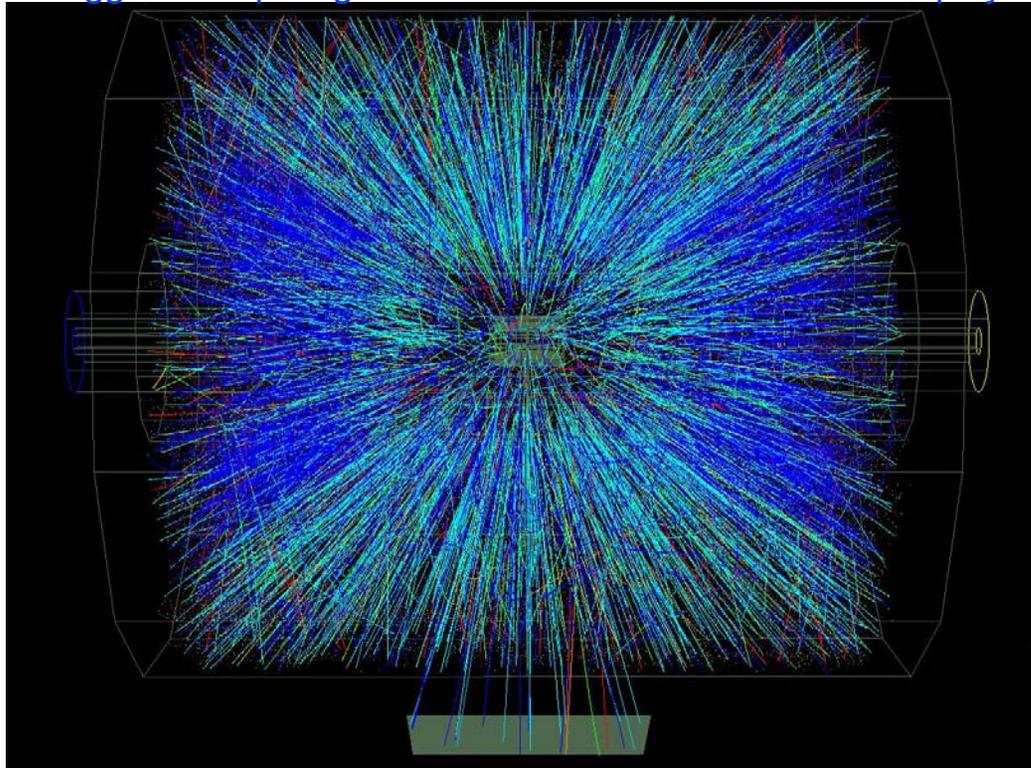


Estimated Integrated Luminosity Evolution for RHIC Run 2										Thomas Roser 8/27/01
Week	Bunches	Bunch Int.	Total Int.	beta star	Ini. Coll. Rate	Ave. Coll. Rate	Availability	ZDC Int. Lumi./week.	Accum. ZDC Int. Lumi.	Comment
#	#	GI	GI	m	Hz	Hz		inv. mb	inv. mb	
1	56	0.30	17	5	286	115	0.30	2	2	
2	56	0.40	22	5	509	204	0.30	3	5	
3	56	0.50	28	5	795	318	0.35	6	12	
4	56	0.60	34	5	1145	458	0.35	9	21	200 MHz cavities operational
5	56	0.70	39	5	1559	623	0.40	14	35	
6	56	0.70	39	3	2598	1039	0.40	23	58	Beta star = 3 m
7	56	0.80	45	3	3393	1357	0.45	35	93	
8	56	0.80	45	2	5089	2036	0.45	52	145	Beta star = 2 m
9	56	0.90	50	2	6441	2576	0.50	73	217	
10	112	0.75	84	2	8946	3578	0.50	101	319	112 bunches
11	112	0.85	95	2	11491	4596	0.50	130	448	
12	112	0.95	106	2	14353	5741	0.50	162	611	

Event taken Wednesday morning - 7/18/01



Triggered requiring ZDC East & West coincidence. Displayed with L3 tracking during the run.



First AuAu Events at $\sqrt{s} = 200$ GeV
B = 0.25 T

