

β -squeeze

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- PHENIX has agreed to forego the rotator ramp. We will subsequently squeeze β^* as low as possible (minimum 60 cm). At each intermediate step we will provide a couple of stores to assess the lifetime and background situation. Once we have settled on the final value for β^* , we may develop a rotator ramp for that configuration, if desired by PHENIX.
- Current configuration (pp83): $\beta^* = 1.0$ m.
- During APEX, we managed to get to $\beta^* = 0.73$ m before beam was lost.
- We have a ramp (pp84) for $\beta^* = 0.8$ m. This ramp needs to be checked (ramped) by power supply group. Time estimate: 4 hours. If quench protection needs re-tuning, this may take another 4 hours later.

- Making pp84 operational (good ramp transmission, collimation,...) takes one (day) shift.
- We would then need a couple of stores to fine-tune the ramp and increase intensities to pre-squeeze levels, and to assess the beam lifetime and background situation. Time estimate: 3 days.
- If there is no indication of being at or near a limit, we could iterate this procedure, squeezing an additional 10 cm during each iteration.
- Getting to $\beta^* = 0.6$ m would thus take about two weeks (3 steps \times 4 days).