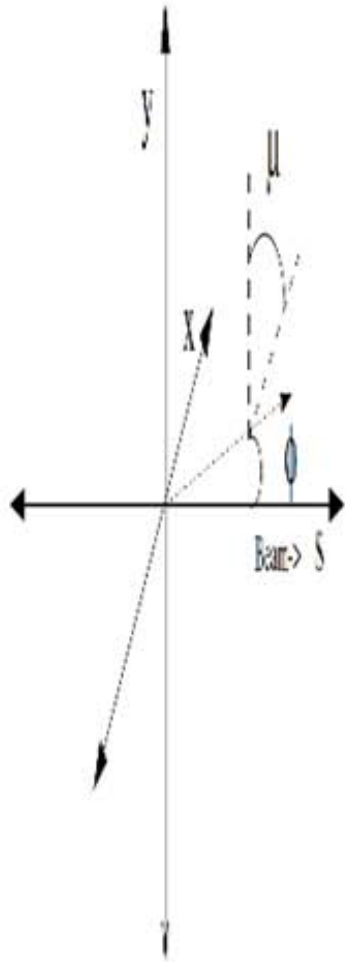$$\frac{d\vec{S}}{dt} = \frac{e}{\gamma m}\vec{S} \times \left((1+G\gamma)\vec{B}_\perp + (1+G)\vec{B}_\parallel + (G\gamma + \frac{\gamma}{\gamma+1})\frac{\vec{E}\times\vec{\beta}}{c} \right) = \heartsuit$$

RHIC FY13 PP RUN: Status
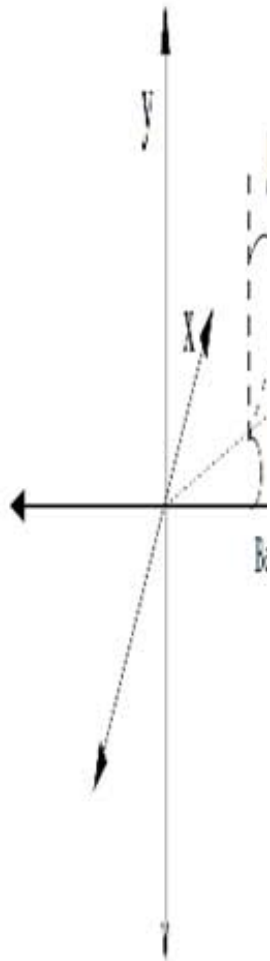
$$\frac{d\vec{S}}{dt} = \frac{e}{\gamma m}\vec{S} \times \left((1+G\gamma)\vec{B}_\perp + (1+G)\vec{B}_\parallel + \left(G\gamma + \frac{\gamma}{\gamma+1}\right)\frac{\vec{E}\times\vec{\beta}}{c} \right) = \; \heartsuit$$

February 2013

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11 4K Wave	12	13	14 Cold in both rings	15	16
17	18 PP12 lattice test evening	19	20 PS work during Day	21	22	23
24 PS gave us e-lens	25	26 First Collisions	27	28 Overnight Stores 109x109 Declare Physics		The Magic Begins!

$$\frac{d\vec{S}}{dt} = \frac{e}{\gamma m}\vec{S} \times \left((1+G\gamma)\vec{B}_\perp + (1+G)\vec{B}_\parallel + (G\gamma + \frac{\gamma}{\gamma+1})\frac{\vec{E} \times \vec{\beta}}{c} \right) = \heartsuit$$
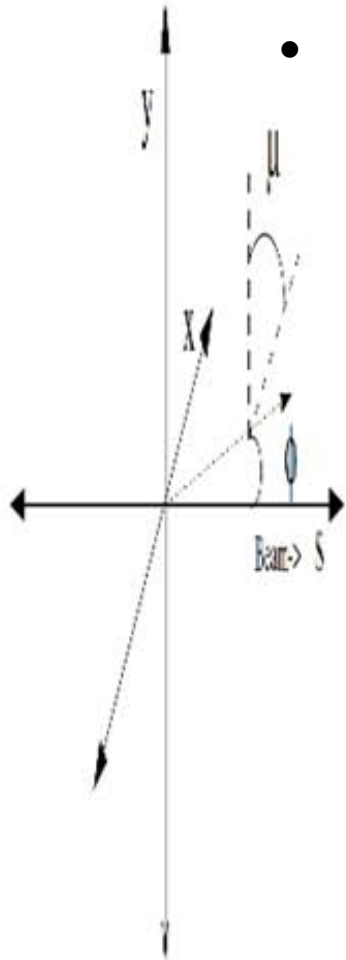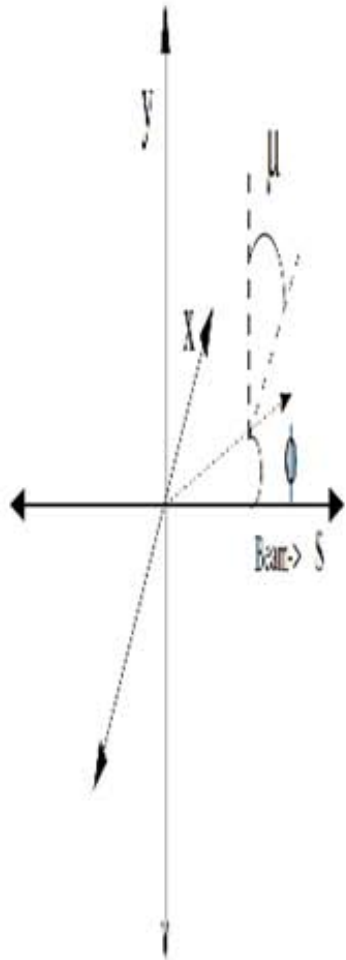
- Challenges Past Week :
  - Current glitches of the main dipole ramp
  - Faulty ATR dipole making injection difficult
  - Emittance blow-up in AGS
  - Wfgman glitches between ramp to store ramp.
  - Tuning Chroms on Ramp
  - Sorting out orbit bumps, Coll. and Chroms on Storage Ramps

Polarization Is Magic.

$$\frac{d\vec{S}}{dt} = \frac{e}{\gamma m}\vec{S} \times \left((1+G\gamma)\vec{B}_\perp + (1+G)\vec{B}_\| + (G\gamma + \frac{\gamma}{\gamma+1})\frac{\vec{E} \times \vec{\beta}}{c}\right) = \heartsuit$$
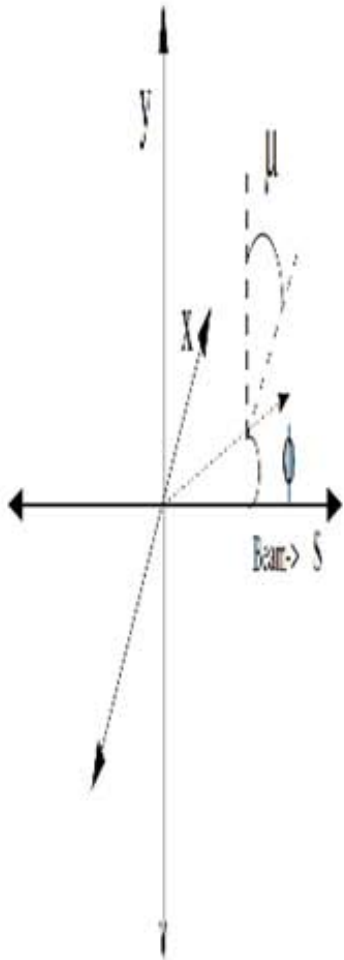
- Future Issues:
  - Improve Ramp Transmission efficiency control bunch length.
  - Get bunch-by-bunch dampers on-line
  - Get good Polarization Transmission efficiency measurements for Ramp
  - Monitor Injection lifetime and Store lifetime
  - Control and measure Chromaticity on Ramp (more importantly tune spread)

$$\frac{d\vec{S}}{dt} = \frac{e}{\gamma m}\vec{S} \times \left((1+G\gamma)\vec{B}_\perp + (1+G)\vec{B}_\parallel + (G\gamma + \frac{\gamma}{\gamma+1})\frac{\vec{E}\times\vec{\beta}}{c} \right) = \heartsuit$$
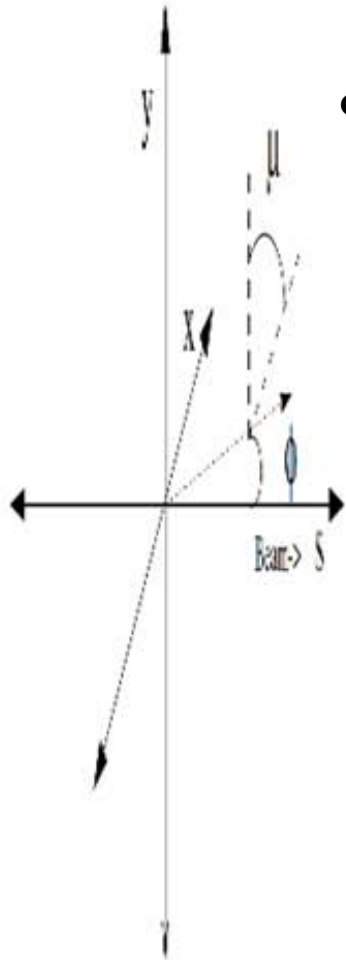
Looking Further Forward:

- Testing limits of mini-tune swing at gg260, gg381 and gg422
- Measuring Optics at the resonance stones on ramp.
- Then focus on orbit at these crossing by bumping imperfection resonances

Polarization Is Magic.

$$\frac{d\vec{S}}{dt} = \frac{e}{\gamma m}\vec{S} \times \left((1+G\gamma)\vec{B}_\perp + (1+G)\vec{B}_\parallel + (G\gamma + \frac{\gamma}{\gamma+1})\frac{\vec{E}\times\vec{\beta}}{c} \right) = \heartsuit$$

- Summarize:
  - We are on Schedule so Far e-lens lattice seems functional at this point
  - Power Supplies are optimized for polarization
  - We have lots of 'tool's in our tool box to try and get all we can in polarization transmission efficiency