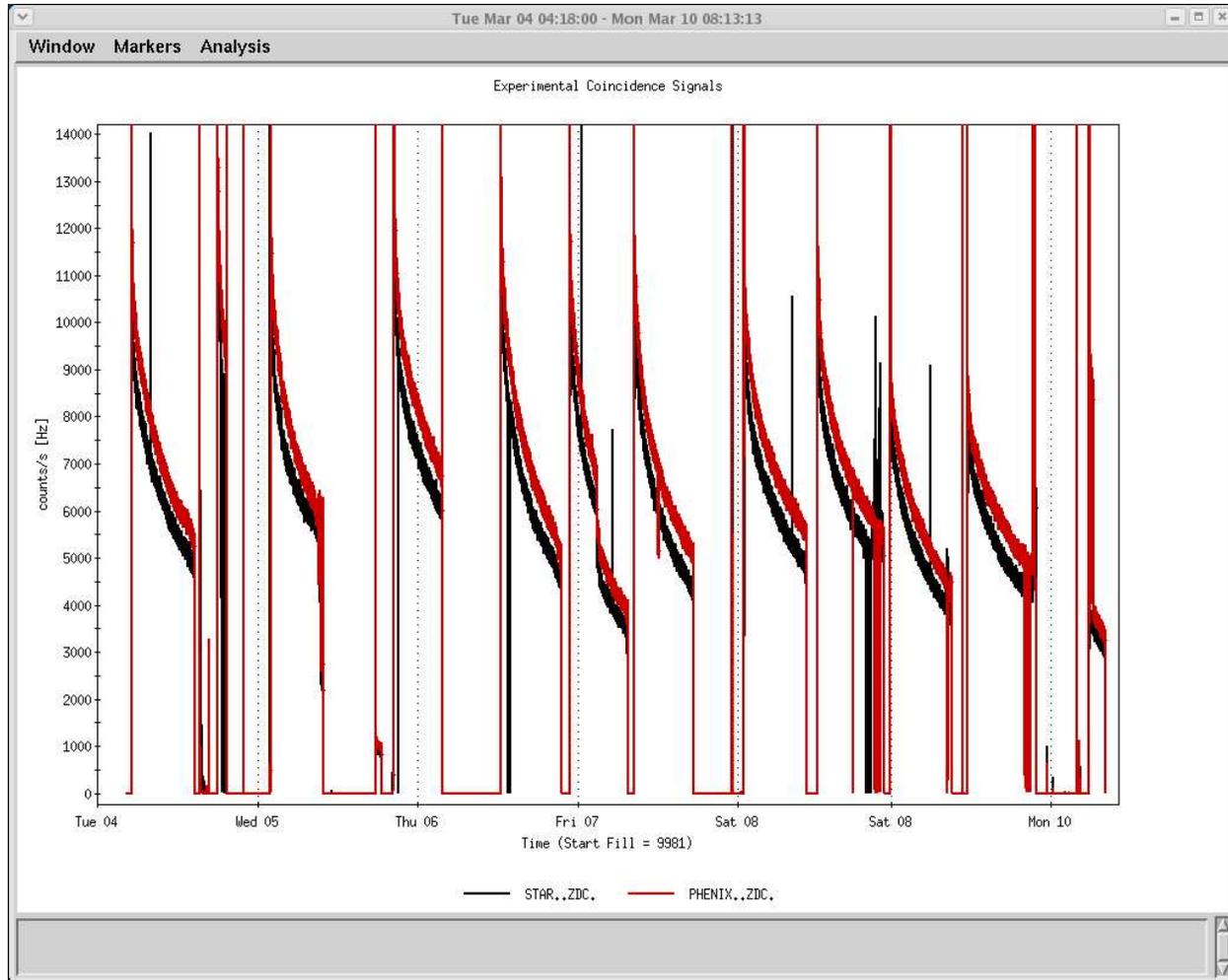


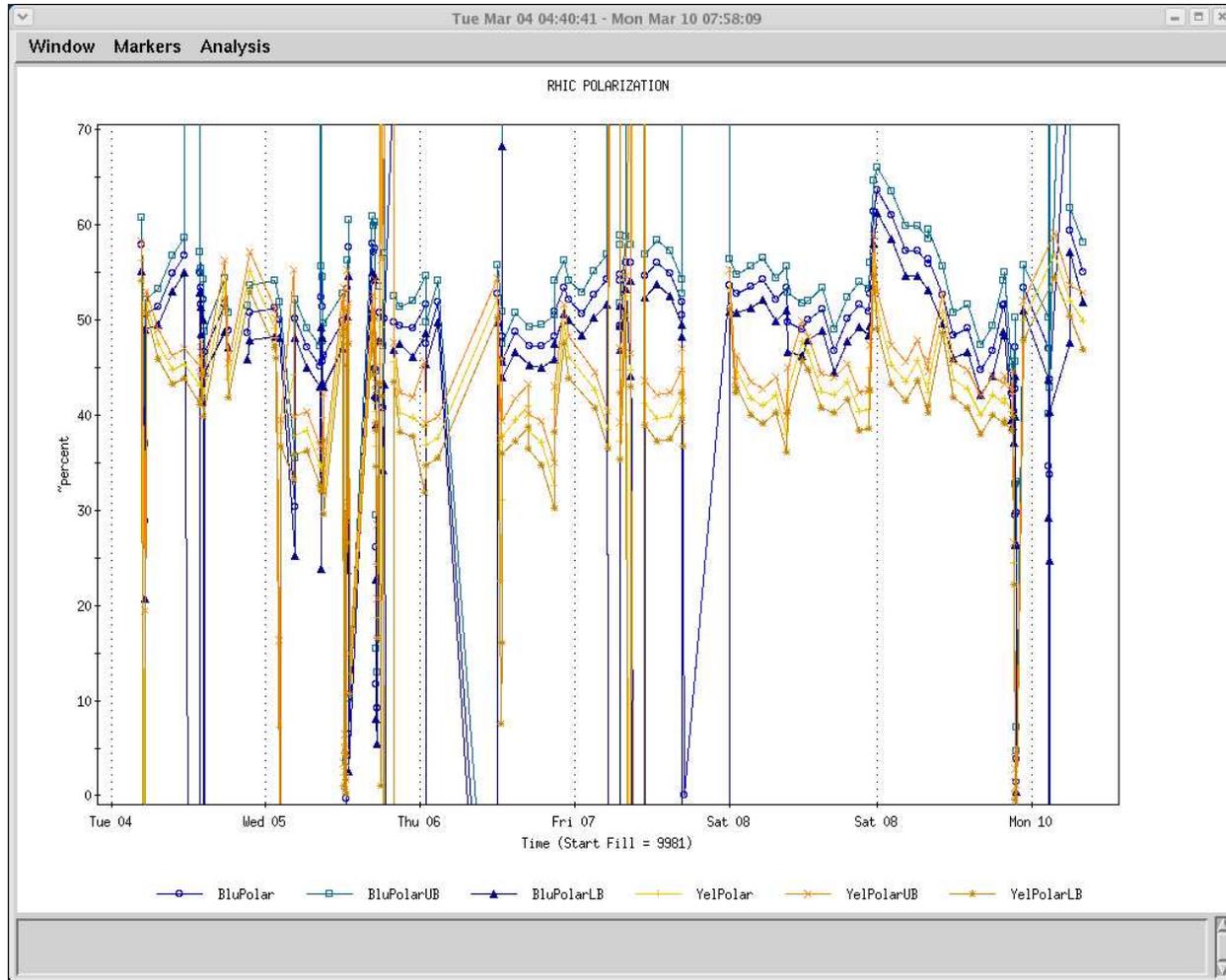
Polarized Proton Run

March 11, 2008

ZDC rates Mar. 4 – 10



Polarization (CNI) Mar. 4 – 10

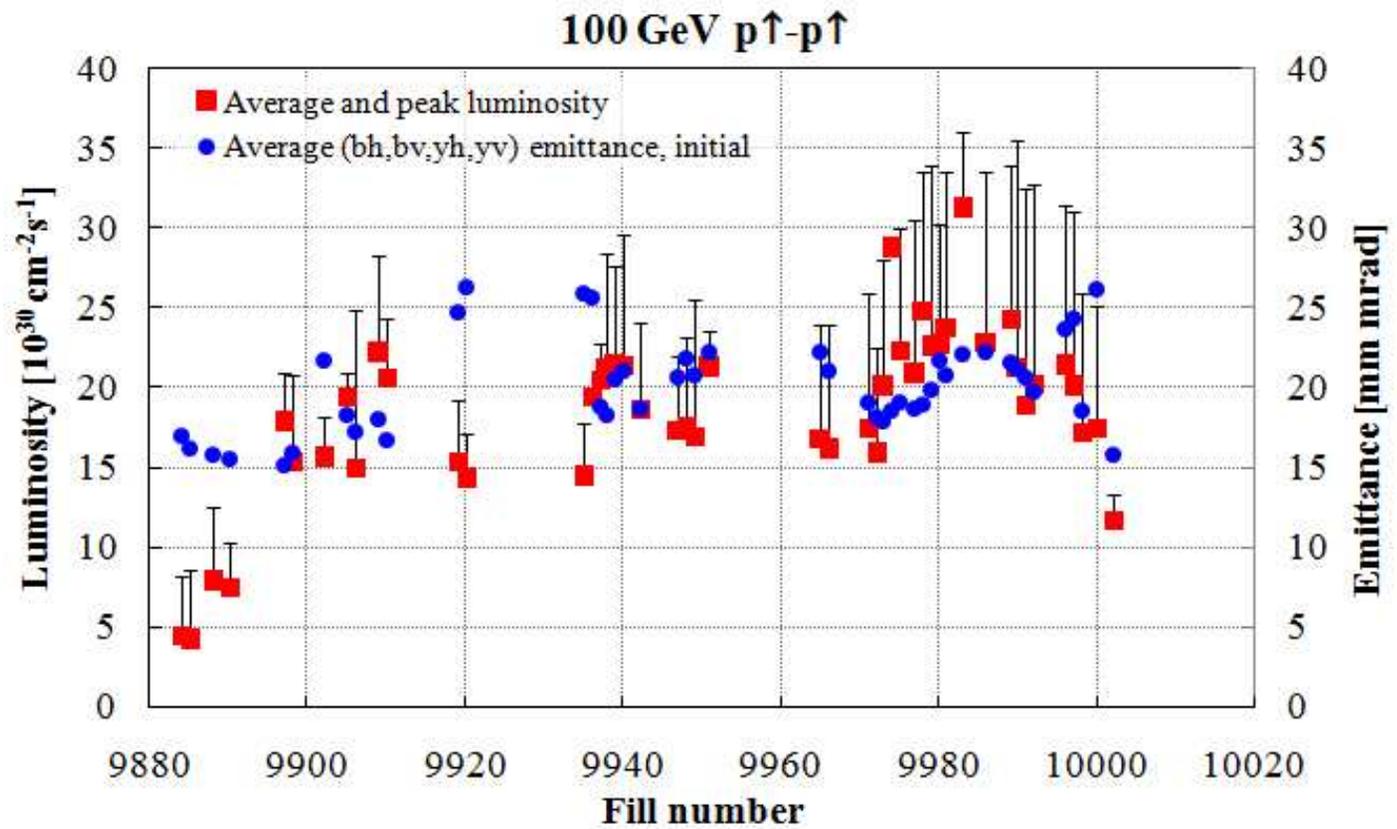


- **Mar. 3:** Set Yellow snakes to same currents as Blue (= nominal currents).
First fill after the change (9980) still has low polarization.
- **Mar. 4:** Fill 9981 has good polarization (> 50 percent), with YA2 tripped before start of ramp.
May indicate a chromaticity problem on the ramp.
Started Yellow snake scan.
- **Mar. 5:** Fill 9983 (the “Monster Store”): 1.84/1.76e11, 14.5kHz ($37 \cdot 10^{30} \text{ cm}^{-2} \text{ sec}^{-1}$).
Lost due to human error after Vernier scan.

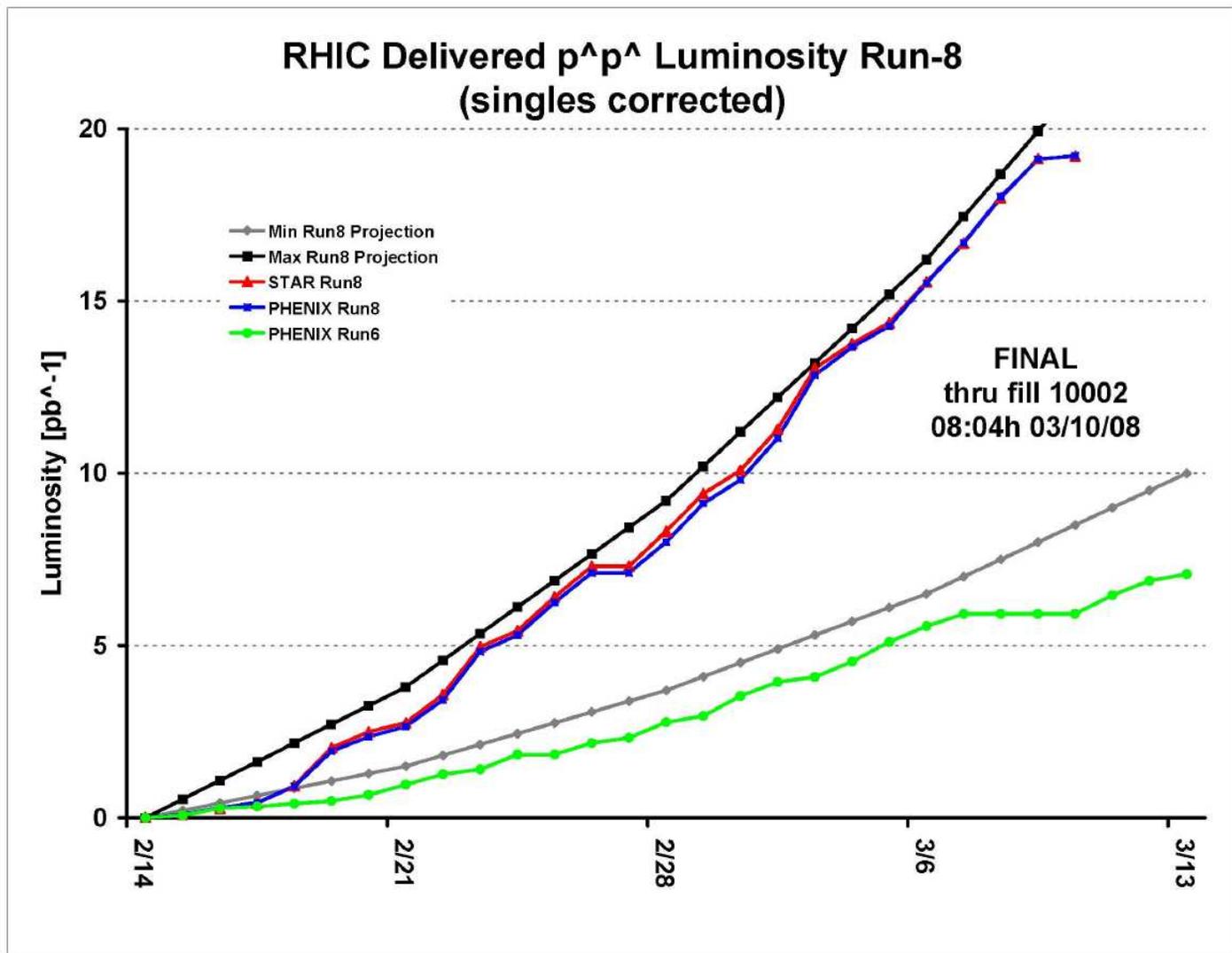
- **Mar. 6:** Fill 9989: 1.72/1.64e11, 13 kHz.
10 Hz cryo test: 30 sec beating disappears at low helium flow.
Jet orbit scan; two-beam mode test.
- **Mar. 7:** Yellow polarization has improved, intensity is lower (1.4e11).
Still need to understand Yellow polarization loss on the ramp. Ramp polarization measurement.
Ramp chromaticity measurements.

- [Mar. 8](#) Changed IR 12 orbits to two-beam mode: One beam at (0,-7 mm), the other one at (0,-1 mm). Corrected chroms on Yellow ramp. Vertical was large after 60 sec.
Fill 9998: 1.22/1.20e11 (low intensity), 9.0 kHz.
64/51 percent polarization at store, out of 61/57 at injection.

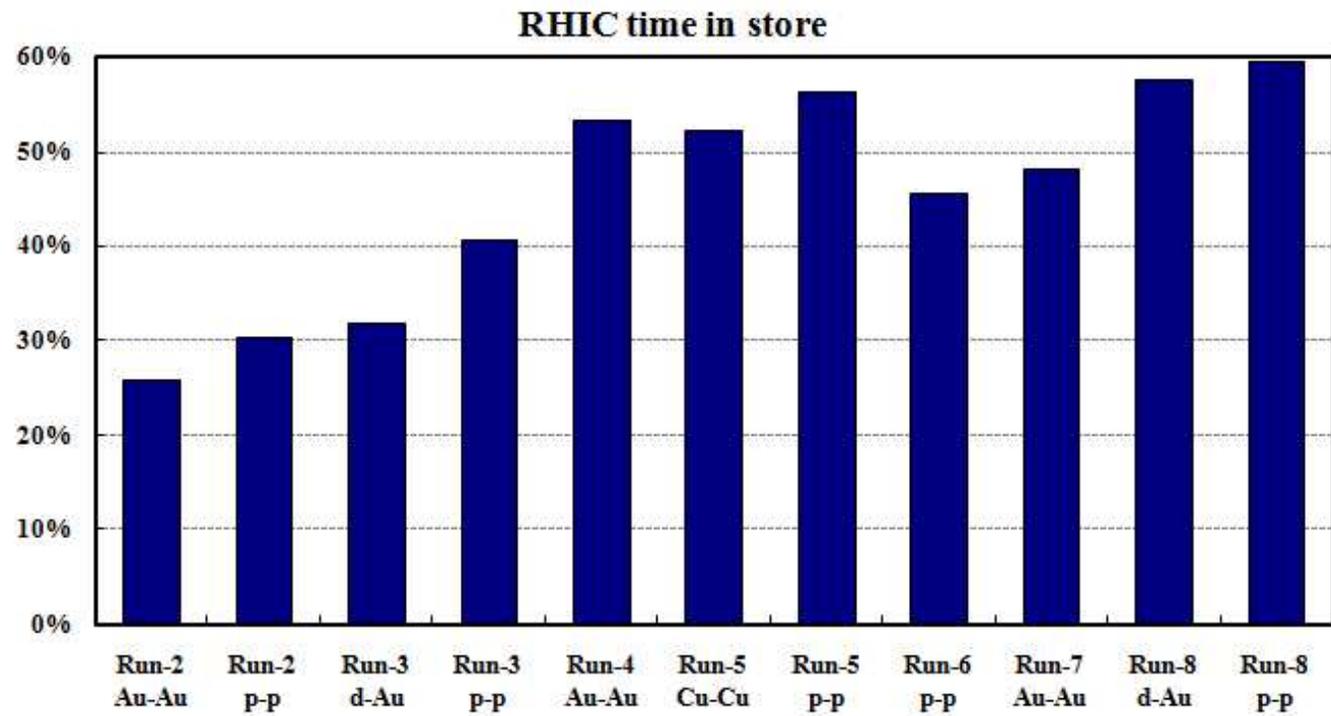
- **Mar. 9** 5.5 mm Jet orbit separation instead of 6 mm.
Lowered Yellow beam by 0.5 mm, from -1.0 mm to -1.5 mm. Early in store 10000.
Spin tune measurements at end of store 10000.
Yellow snake angle adjustment.
Multiple permit pulls due to losses at snake.
Fill 10002: 0.98/0.79e11, 4.5 kHz.
59/52 percent polarization st store. 55/50 at end of store.
Inserted Roman Pots at end of store.



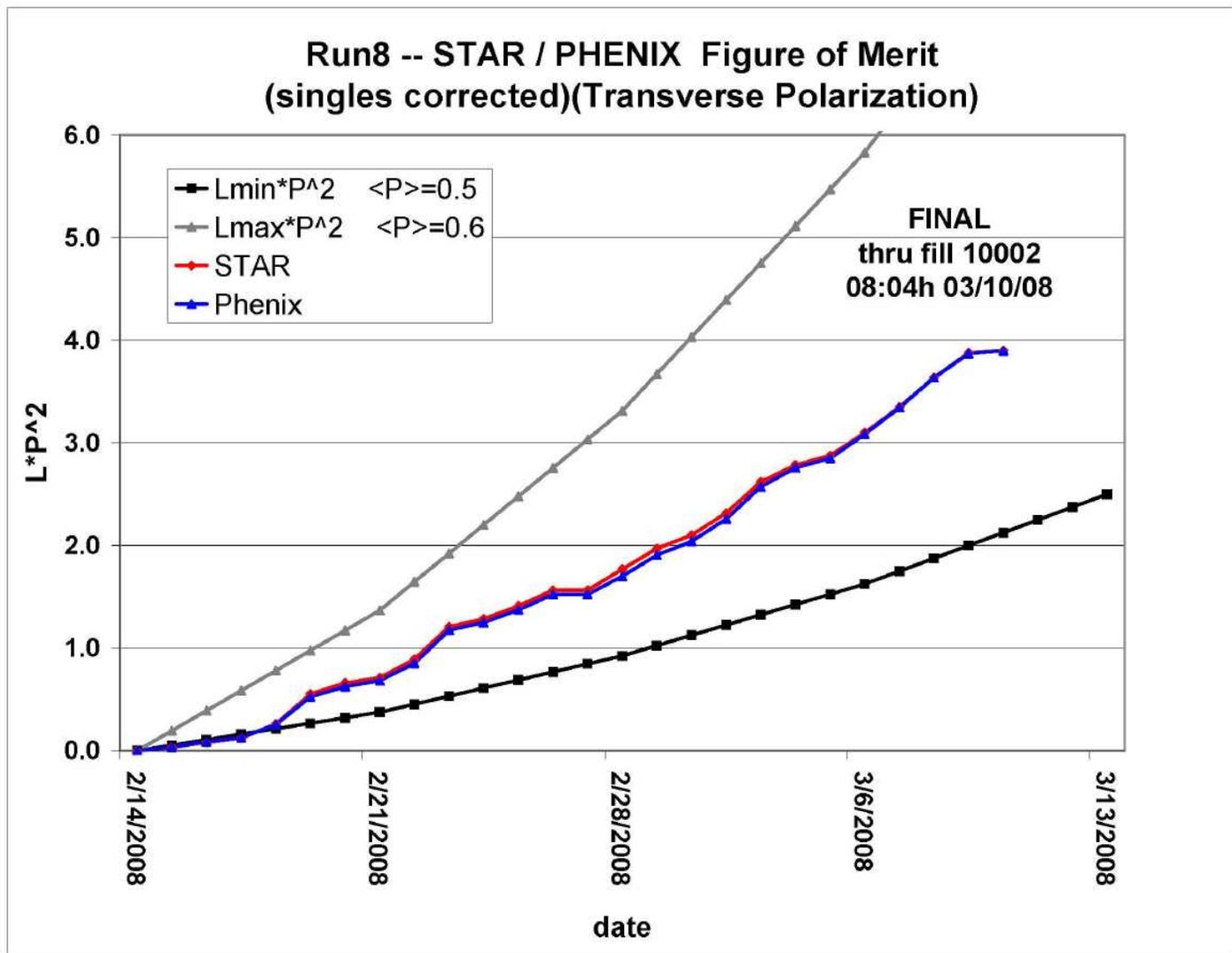
Courtesy Wolfram Fischer



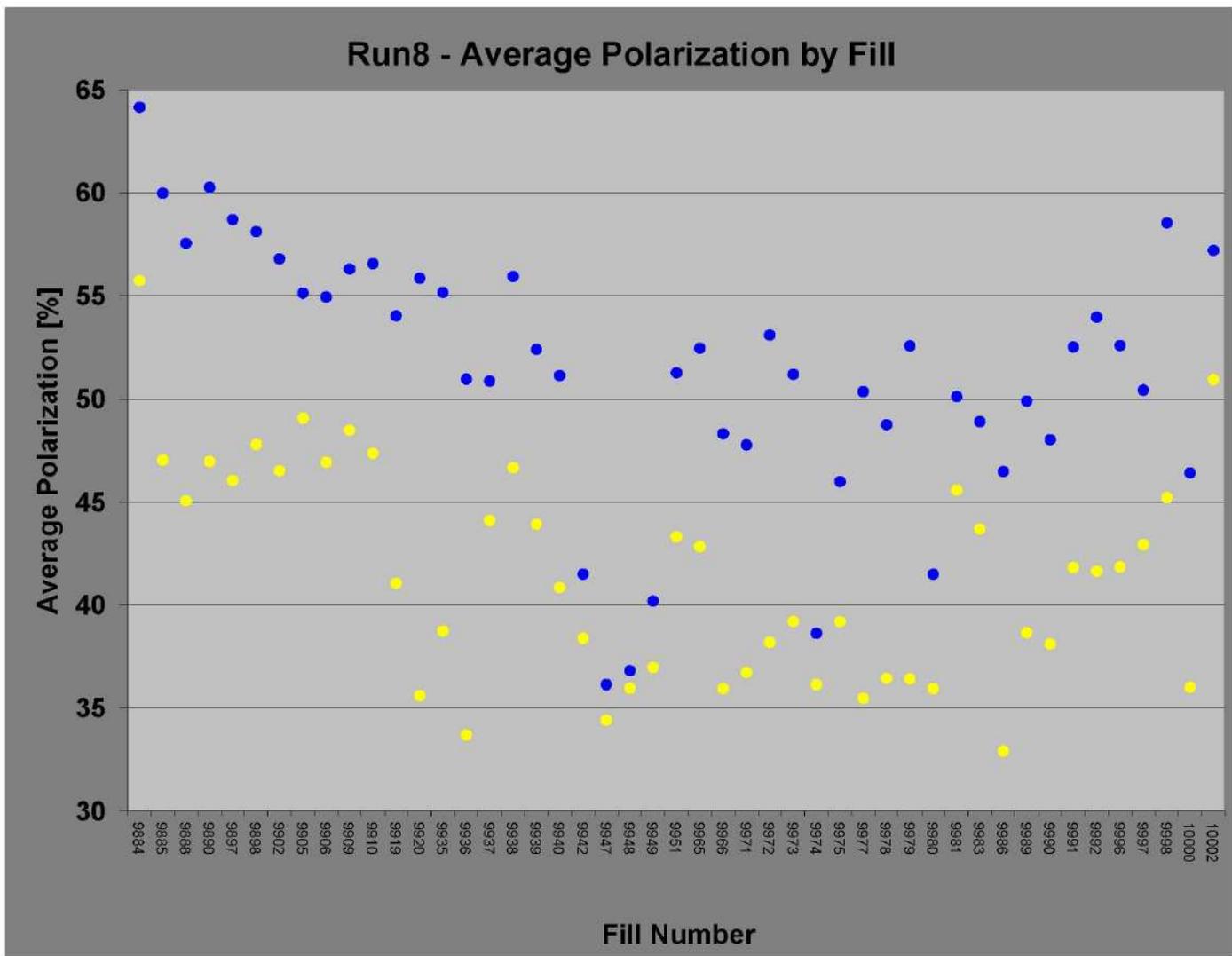
Courtesy Peter Ingrassia



Courtesy Wolfram Fischer



Courtesy Peter Ingrassia



Courtesy Peter Ingrassia