

# APEX Schedule

April 12, 2012

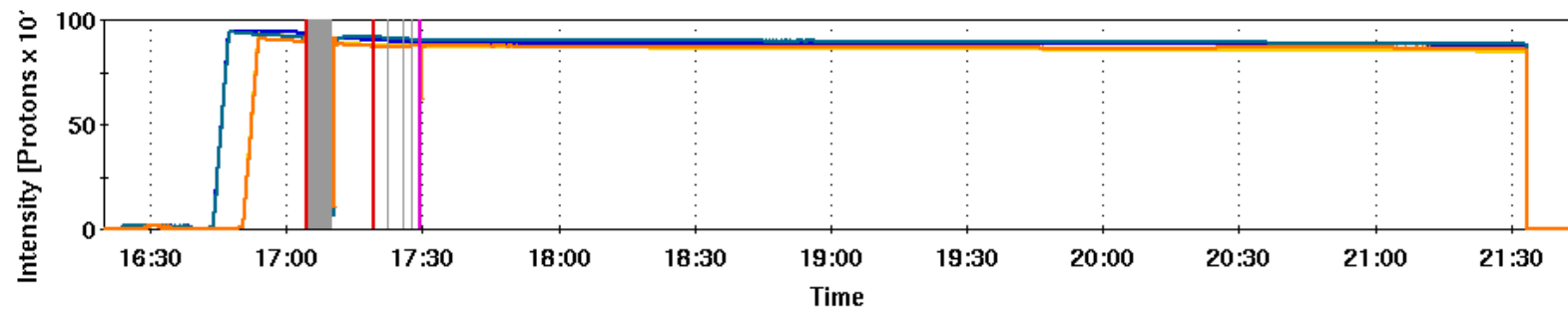
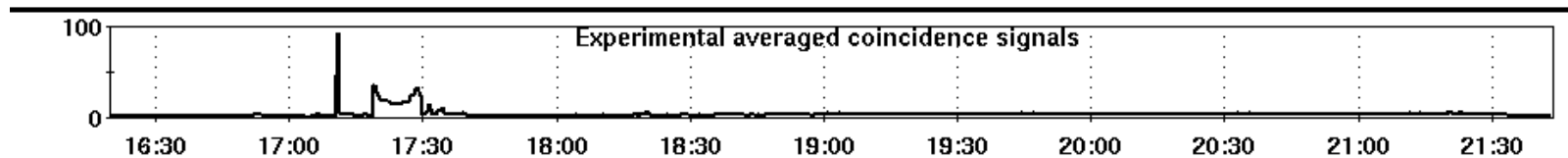
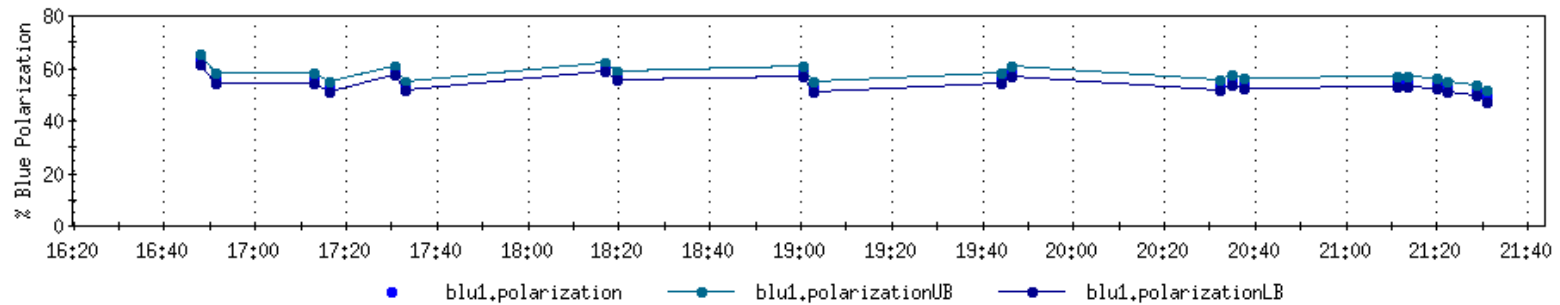
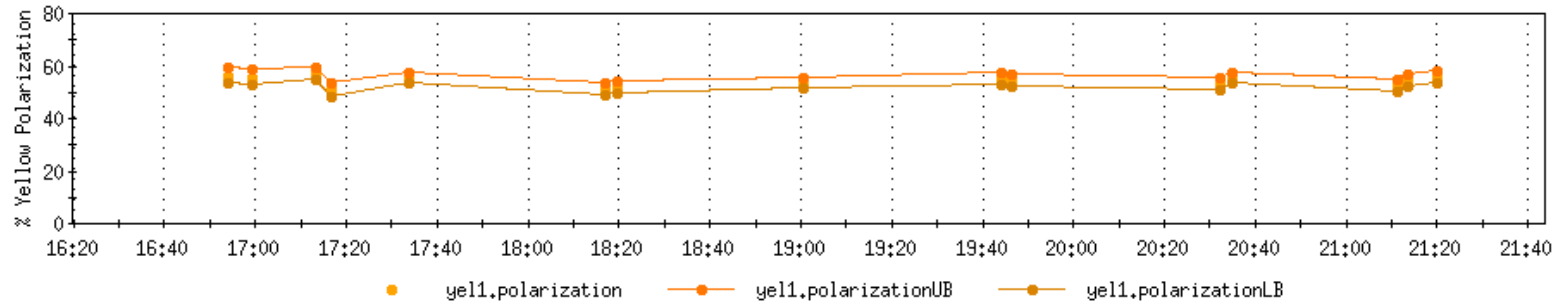
|                                                                                                                       |                                              |                                                               |                                                                       |                                                                                                                                                                                                                                                                                                                                                        |        |
|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------------|---------------------------------------------------------------|-----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| <p>Injection</p> <p>Spin flipper<br/><b>M. Bai, P. Oddo, ...</b></p> <p>pC polarimeter study<br/><b>Huang ...</b></p> | <p>Injection impedance<br/><b>Montag</b></p> | <p>Ramp</p> <p>Beam-beam Study<br/><b>Simon, Yun, ...</b></p> | <p>Store</p> <p>Off momentum beta-beat<br/><b>Luo, White, Bai</b></p> | <p>Store</p> <p>Polarization Lifetime without collisions:</p> <ul style="list-style-type: none"> <li>• Blue beam sitting at <math>Q_y=0.6875</math></li> <li>• Yellow beam sitting at <math>Q_y=0.68</math></li> <li>• measure polarization every 45 mins</li> <li>• Jet measurement<br/><b>Team</b></li> </ul> <p>Measure pp IBS:<br/><b>Team</b></p> |        |
| 8am                                                                                                                   | 10am                                         | 11am                                                          | 2pm                                                                   | 2:30pm                                                                                                                                                                                                                                                                                                                                                 | 7:30pm |
|                                                                                                                       |                                              |                                                               |                                                                       |                                                                                                                                                                                                                                                                                                                                                        | 8pm    |

# Polarization Lifetime

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- 56x56 non-collision fill
- With all rotators on
- Blue vertical tune set to 0.6875, 11/16 snake resonance
- Yellow vertical tune set to 0.68, no resonance
- At the end, ie last 20 mins, moved Blue vertical tune to 0.7, 7/10 snake resonance

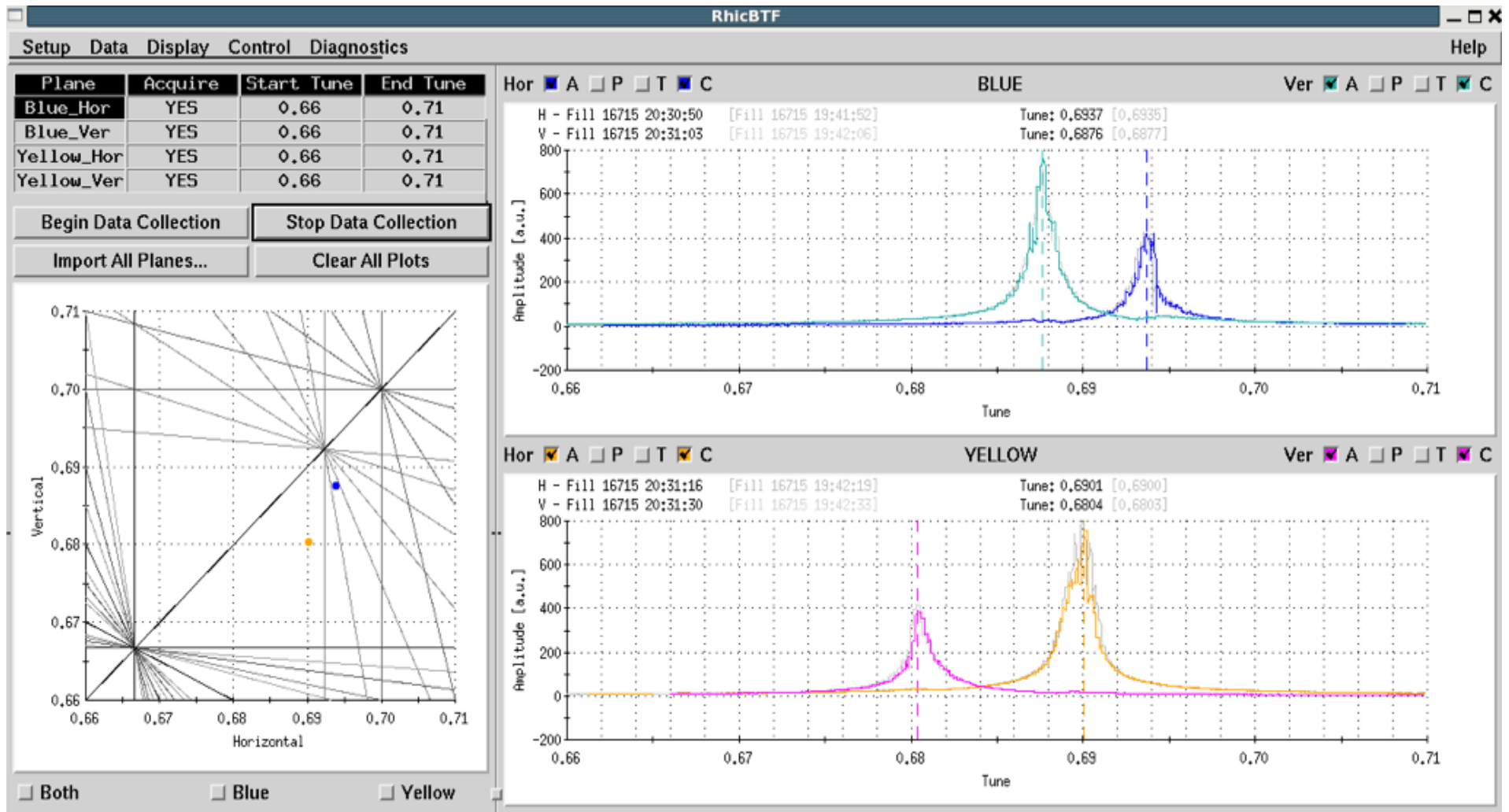
# Polarization Lifetime



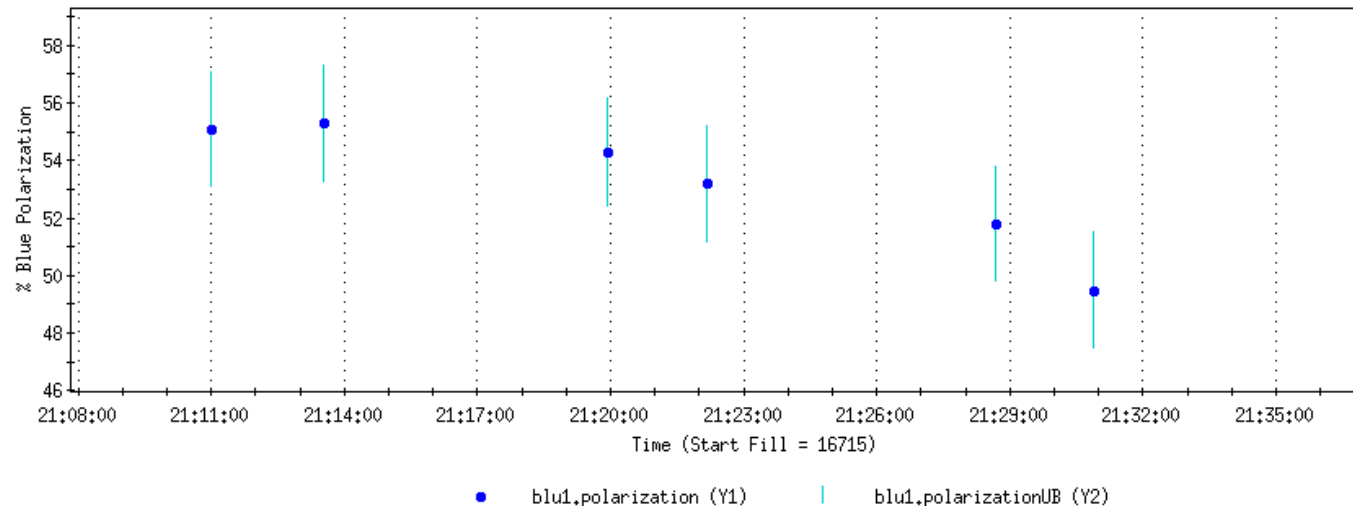
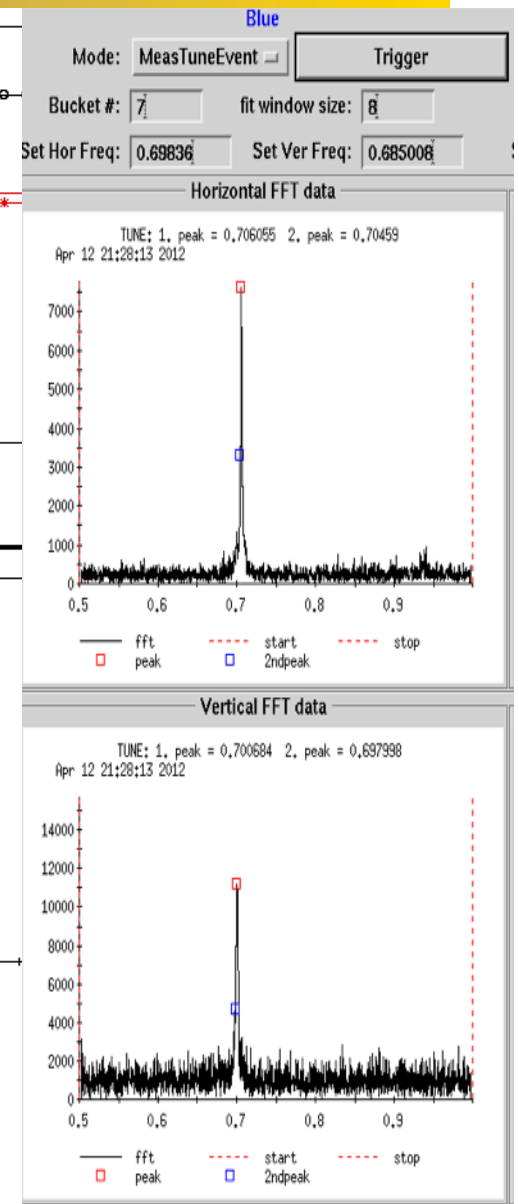
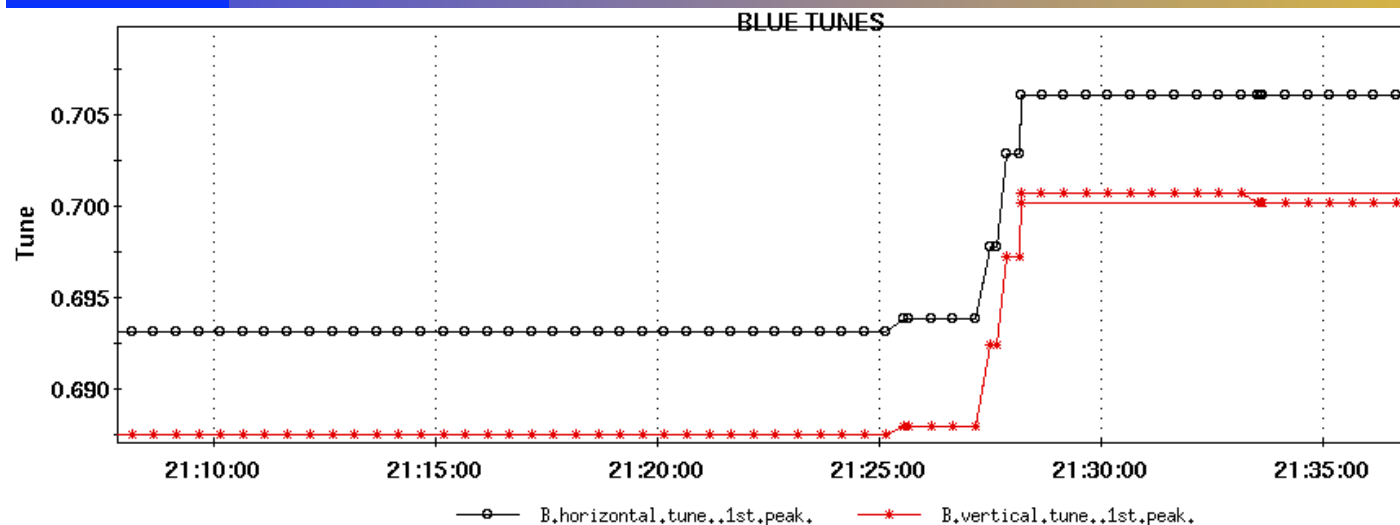
APEX

RUN-12

# BTF during Store

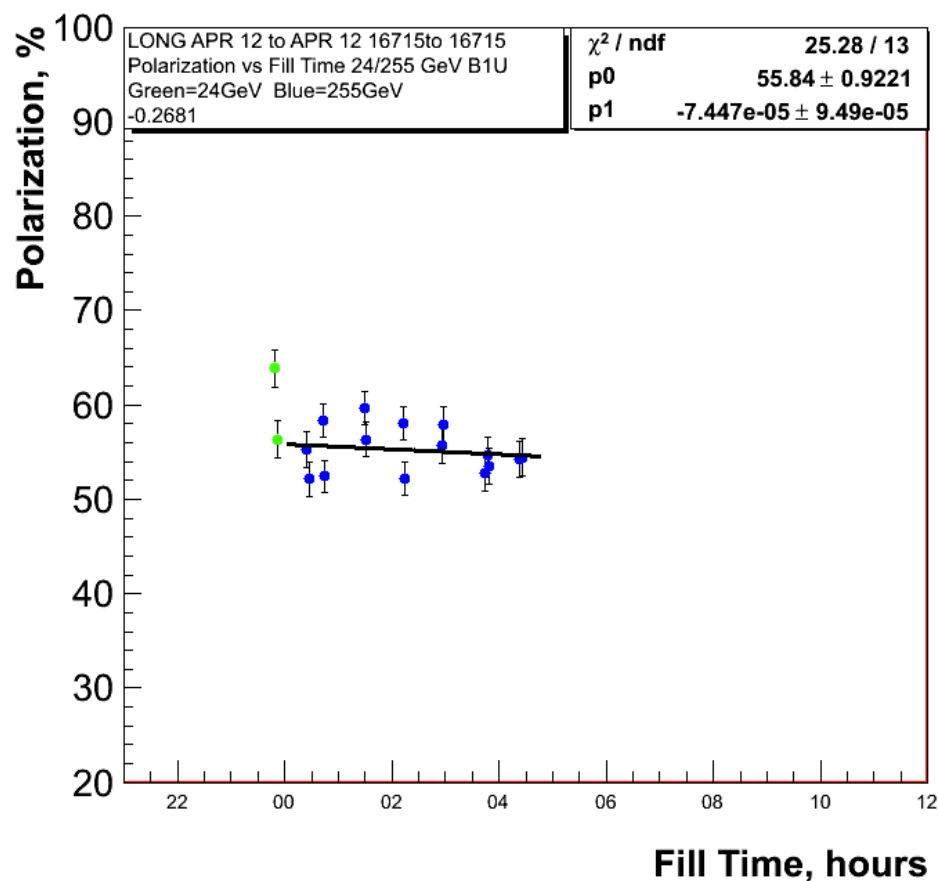
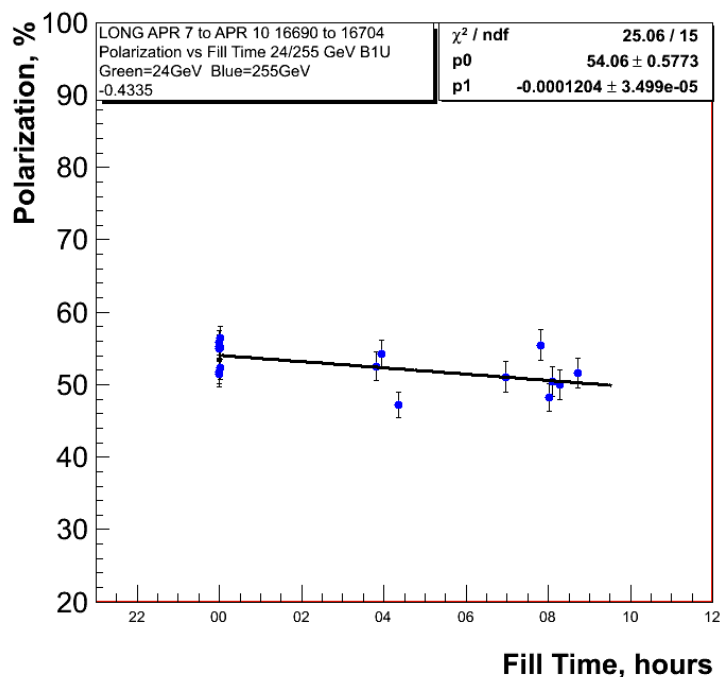


# Effect of 7/10 Resonance



# Preliminary Analysis from Polarimeter Group

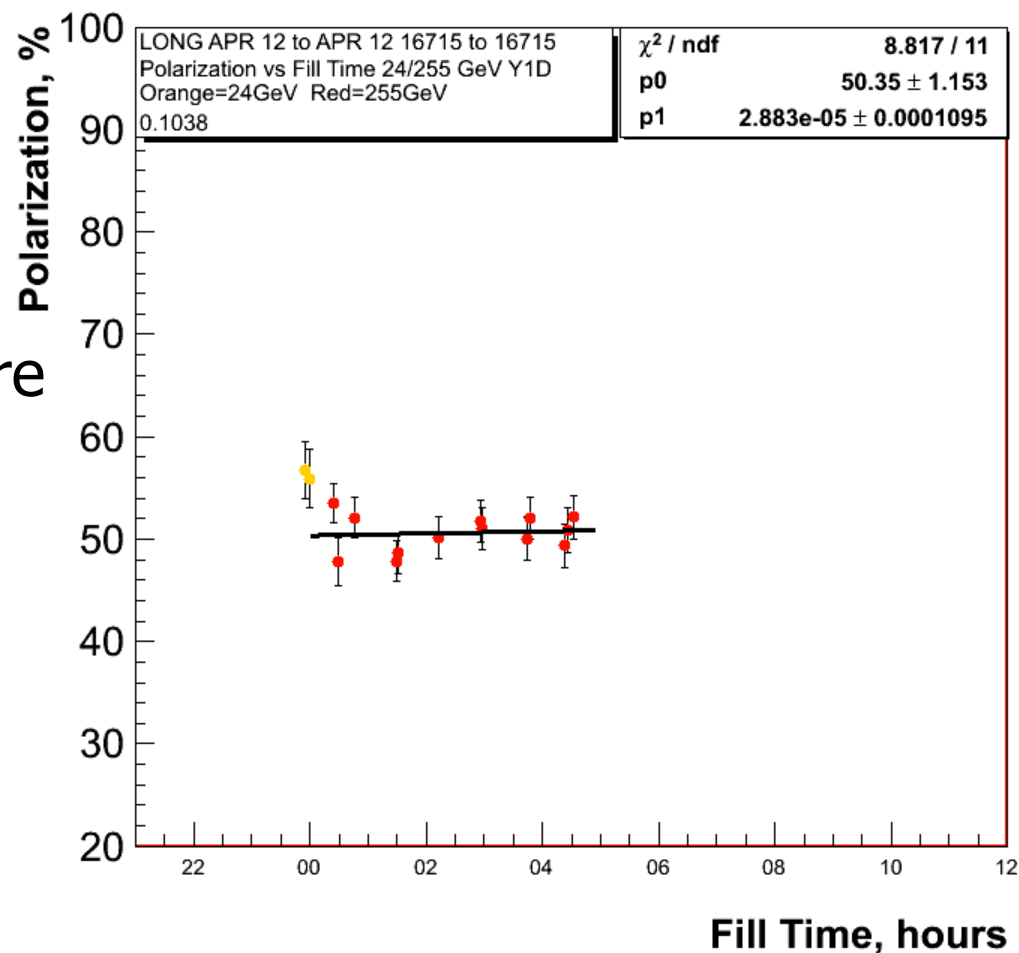
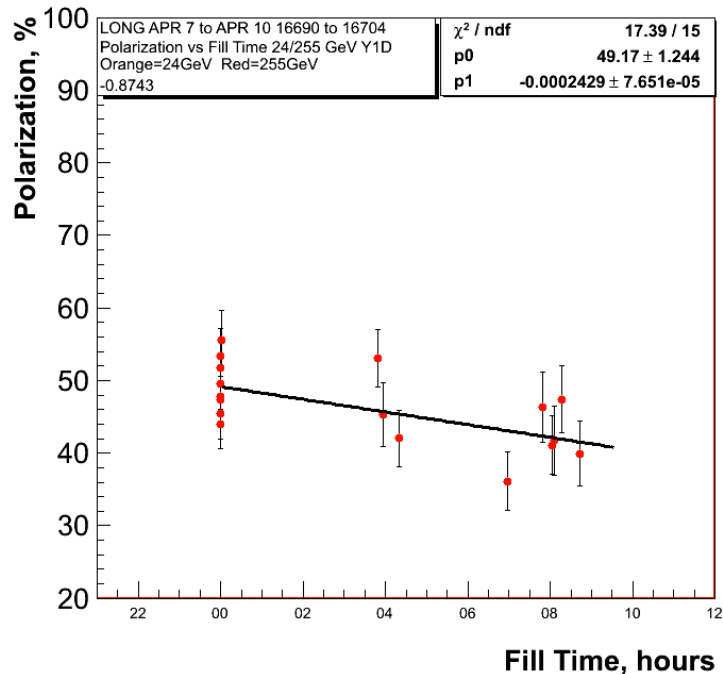
From normal physics store



Plots are produced by Anders, Elke, etc.

# Preliminary Analysis from Polarimeter Group

From normal physics store



Plots are produced by Anders, Elke, etc.

# Preliminary Conclusions

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- 7/10 snake resonance is pretty visible at store, as expected
- 11/16 snake resonance is not the dominant source of polarization lifetime for physics store
- Data indicates the polarization lifetime is affected by beam-beam.

# APEX Schedule

April 18-19, 2012

|                                    |                             |                                                |                                                  |                                            |     |
|------------------------------------|-----------------------------|------------------------------------------------|--------------------------------------------------|--------------------------------------------|-----|
| End of Physics store               | Injection, (MD)             | store                                          | Injection                                        | Injection                                  |     |
|                                    |                             |                                                | Spin tuner<br>M. Bai, P. Oddo, ...               |                                            |     |
|                                    | Bunch-by-bunch damper<br>RF | Optics correction<br>Bai, White, GRD, Joe, ... |                                                  | Jet injection measurement<br>Yousef, ..... |     |
| Beam-beam Study<br>Simon, Yun, ... |                             |                                                | Jet injection measurement setup<br>Yousef, ..... |                                            |     |
| 12:30pm                            | 1pm                         | 3pm                                            | 5pm                                              | 8pm                                        | 8am |