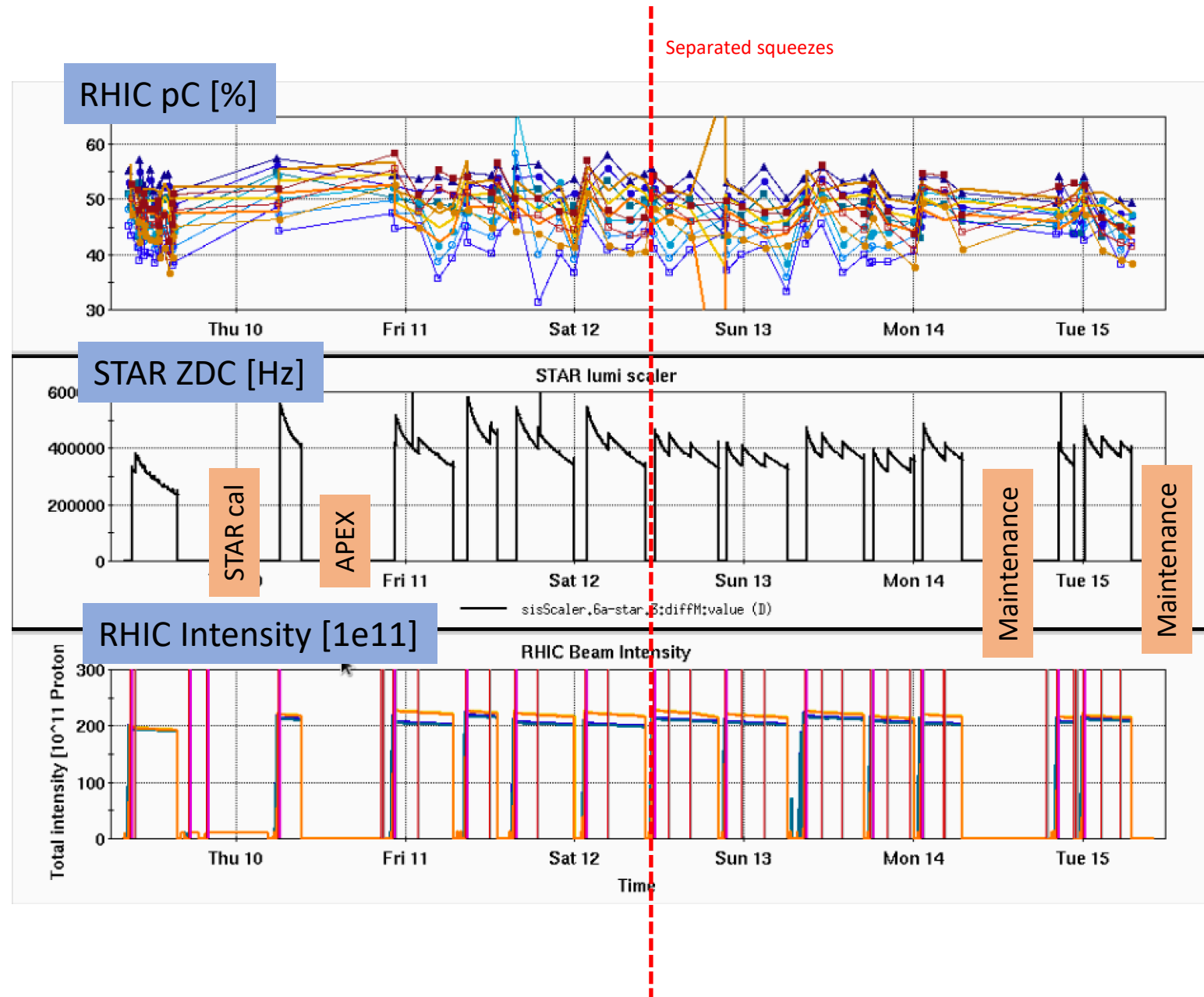


RHIC Run 22 Run Status

2/15/2022, V. Schoefer

- AGS to RHIC transfer improved
 - Vertical orbit at extraction was causing coupling in the transfer via sextupole feed-down
- Peak lumi improved: high enough to delay first squeeze for leveling
- Polarization affected by stability of the Westinghouse
 - Current function during AGS acceleration changes, shifts resonance timing away from the tune jumps



AGS Extraction Vertical sin9: 7 mm

Nominal optics

Flag	uf5
Plunger	In
Lamp	Off
Log Data	Enable

Name	Value	+	-	Incr
Offset	235	+	-	4
Gain	115	+	-	4

Xmission: 10%

Timestamp	11:19:09
Center [mm]	(-2.3293,-2.5249)
Sigma [mm]	(2.1418,3.2418)
Fit Quality	(0.04503,0.05661)
Intensity	1335578
Data Range	0 - 161 (169)

selectDefaults
Ado Name: fpmCommon.ERL of Device: ERL -- Rhic er Ready...

Ver. Defocused

Flag	uf5
Plunger	In
Lamp	Off
Log Data	Enable

Name	Value	+	-	Incr
Offset	239	+	-	4
Gain	115	+	-	4

Xmission: 10%

Timestamp	11:24:26
Center [mm]	(-2.6591,-2.3393)
Sigma [mm]	(1.8796,4.4954)
Fit Quality	(0.04452,0.06131)
Intensity	1801785
Data Range	0 - 166 (170)

selectDefaults
Ado Name: fpmCommon.ERL of Device: ERL -- Rhic er Ready...

AGS Extraction Vertical sin9: 0 mm

Nominal optics

Flag	uf5
Plunger	In
Lamp	Off
Log Data	Enable

Name	Value	+	-	Incr
Offset	239	+	-	4
Gain	115	+	-	4

Xmission: 10%

Timestamp	11:34:20
Center [mm]	(-0.57411,-1.3032)
Sigma [mm]	(1.9451,2.9158)
Fit Quality	(0.05367,0.04761)
Intensity	1310881
Data Range	0 - 163 (170)

selectDefaults
Ado Name: fpmCommon.ERL of Device: ERL -- Rhic er Ready...

Ver. Defocused

Flag	uf5
Plunger	In
Lamp	Off
Log Data	Enable

Name	Value	+	-	Incr
Offset	239	+	-	4
Gain	115	+	-	4

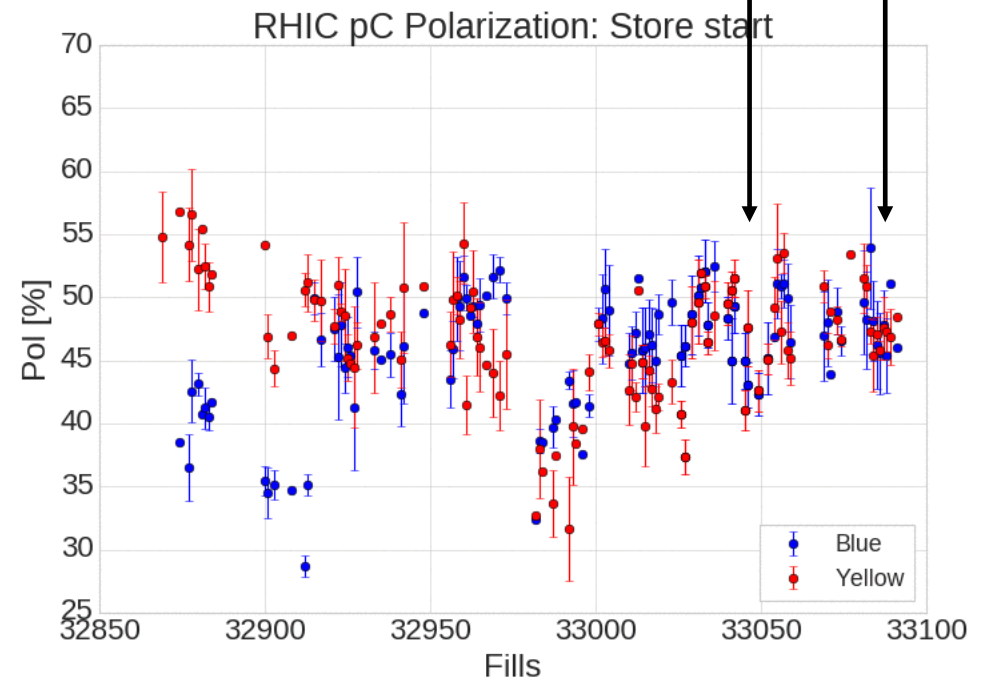
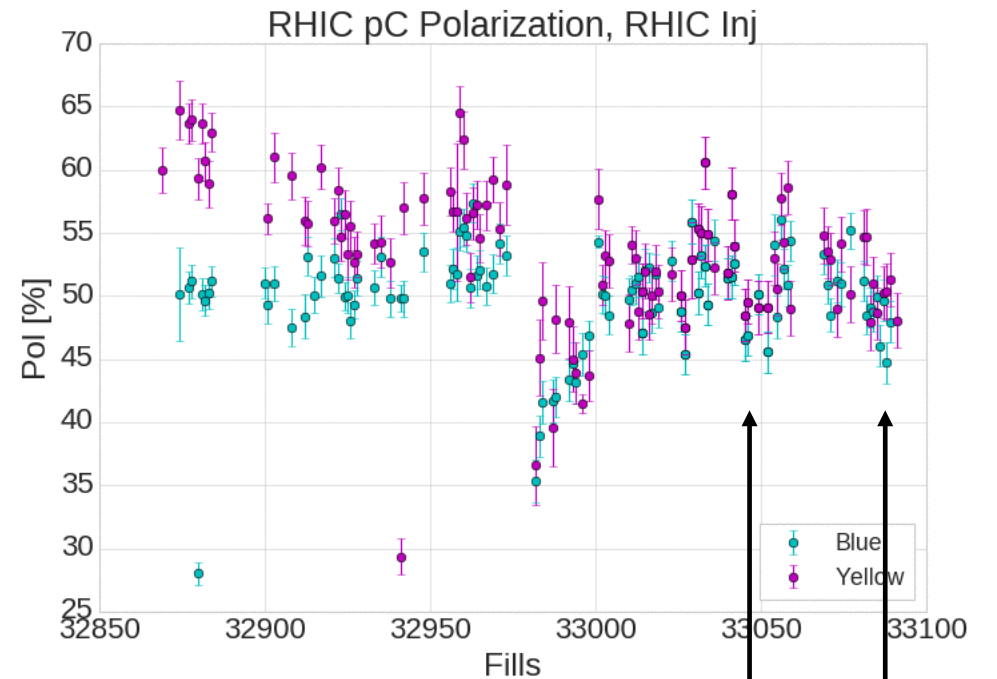
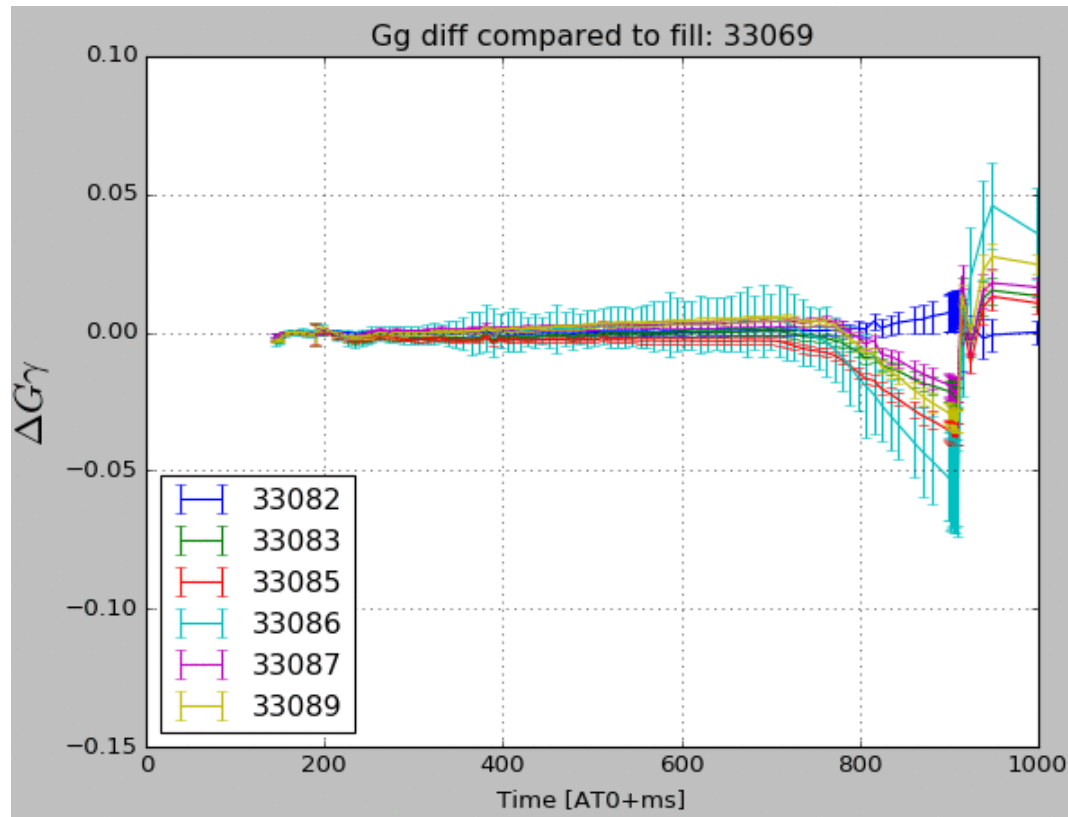
Xmission: 10%

Timestamp	11:31:21
Center [mm]	(-1.3532,-6.8474)
Sigma [mm]	(1.6256,4.0184)
Fit Quality	(0.07632,0.04162)
Intensity	1615324
Data Range	0 - 166 (171)

selectDefaults
Ado Name: fpmCommon.ERL of Device: ERL -- Rhic er Ready...

Westinghouse energy drift

- Corresponds to dips in polarization
- Main component of long term drift seems to come from the liquid rheostat (particular to Westinghouse)
- Voltage loops adjusted this afternoon



Plans

- Meeting tomorrow to discuss spin direction correction effort, parameter for scan planned for Thursday
- AGS to RHIC transfer line measurements to address residual optical errors
- Pending more diagnostics and decision about Siemens: proceed to split/merge setup with the Westinghouse