

# **AGS/Booster PP Setup Status**

Haixin/Vincent

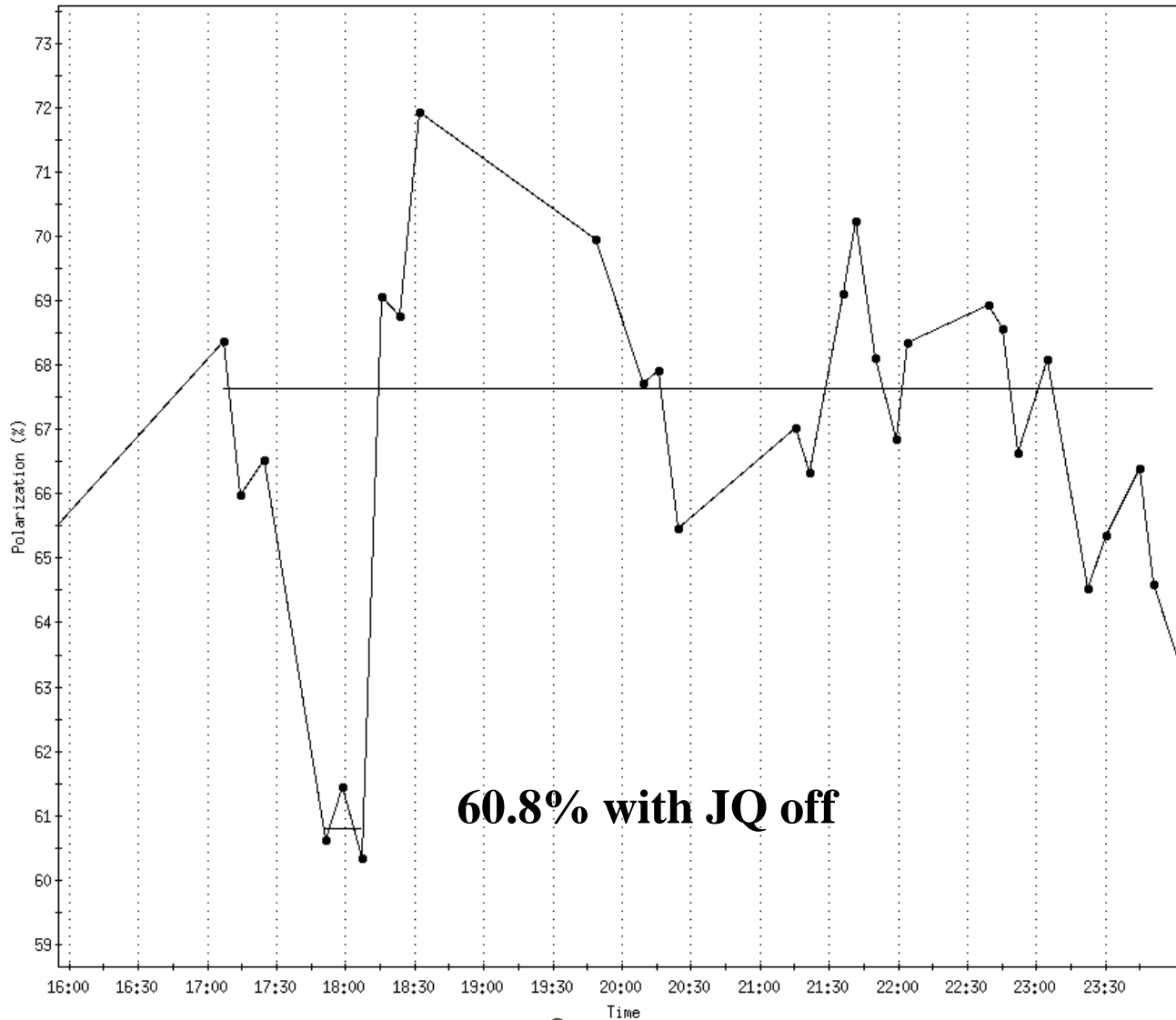
Feb. 5, 2013  
Time Meeting

# Timeline

- Jan. 23: PASS system issue delayed start, but got beam spiraling in the AGS.
- Jan. 24: LLRF commissioning. Beam accelerated to flattop.
- Jan. 25: AGS cold snake PS test.
- Jan. 26: AGS LLRF setup continued. Beam survival from shot to shot.
- Jan. 27: Polarimeter setup for flattop energy setup was done.
- Jan. 28: AGS LLRF setup continued.
- Jan. 29: AGS LLRF setup almost done. Field fluctuation near flattop was fixed. Booster F3 and F6 fixed.
- Jan. 30: JQ was tested with beam. AGS access to fix E17 snake compensation quads.
- Jan. 31: Tunemeter setup was done. AGS setup with snake on was done.
- Feb. 1: Tune jump functions were set. Polarimeter setup for injection was done. Polarization was measured above 50% at flattop.
- Feb. 2: JQ on shown polarization gain (65% vs. 59%). Zigzags in 9<sup>th</sup> harmonics have been tuned out. Seen some vertical emittance growth with JQ on.
- Feb. 3: Continue to optimize optics, to get higher polarization with higher intensity (seen polarization near 70% with  $0.9 \times 10^{11}$ ).
- Feb. 4: Increase intensity and efficiency.
- Feb. 5: Readjusted the JQ pulse shape for better matching. Taking polarization profile measurements with JQ on and off.

# JQ on and off Comparison

AGS CNI Polarimeter



**67.6% with JQ on**

**60.8% with JQ off**

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Haixin Huang

● AgsPolarFit — 67.6352 — 60.7939

# Plan Over Next A Few Days

- Ramp measurement with JQ on.
- Timing scan with JQ timing (+-1ms, +-2ms).
- Polarization profile measurement with JQ on and off.
- Test extraction bump (the DC one, used in last year).
- Set up H=2 in the booster while doing Siemens test on coming days.
- After switching to Siemens, we will setup the snake on machine right away.