# WISE Operations MMR

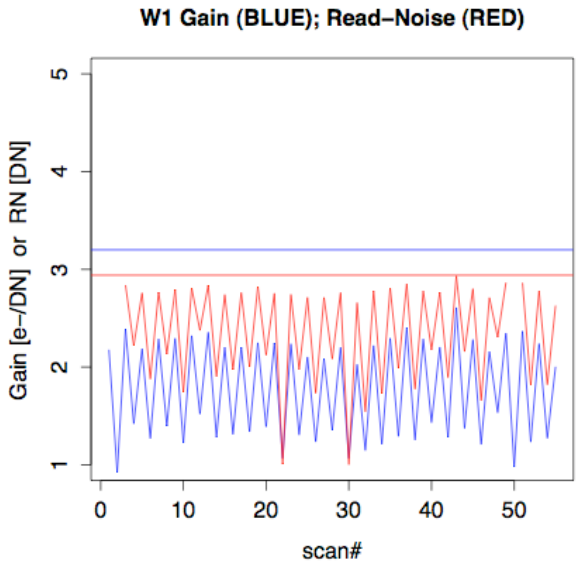
## IPAC/WSDS Weekly Status Report

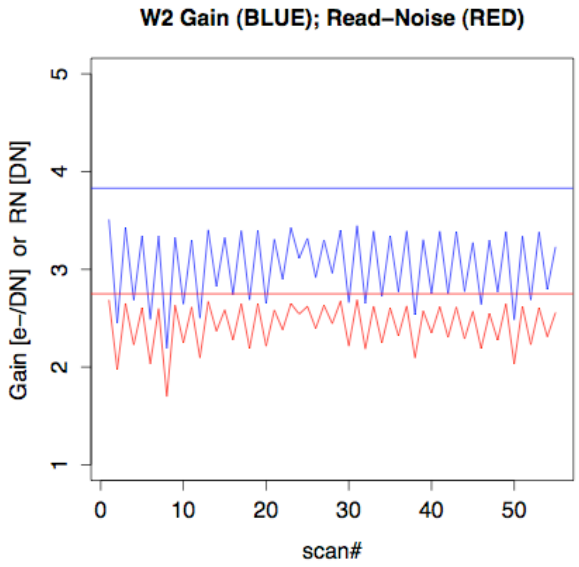
R. Cutri, T. Conrow, J. Bauer, R. Beck,
D. Kirkpatrick, F. Masci, L. Yan

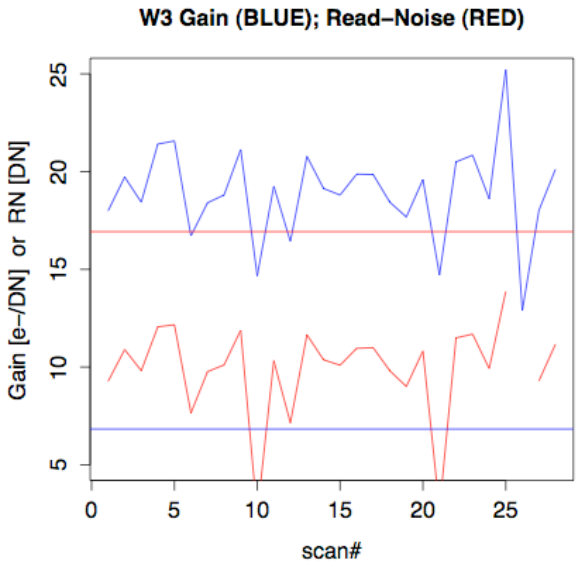
# W1,W2,W3 electronic gains and read-noise



- from 55 consecutive scans with 1.1 sec exposure time, scans: 08252a - 08293b [acquired Sep 13 - 14]
- based on fitting simple noise model to robust frame variance vs. mode background in single scans
- W1, W2 gains down from nominal => more DN/Jy for fixed Q.E. => higher throughput!?
- W3 is up from nominal => fewer DN/Jy for fixed Q.E. => lower than predicted for 1.1 sec exptime (from nominal 8.8 sec)



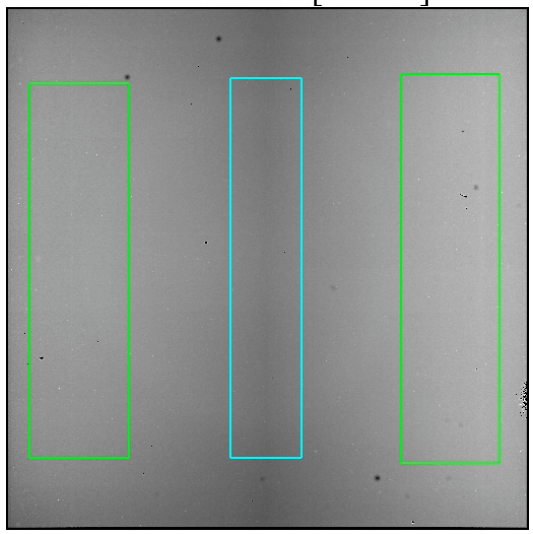

nominal

# W3 Level-0 frame differential background for 1.1 sec



- explored time dependence in W3 background gradient from edge to middle of array as a possible diagnostic for saturation
- middle of array has effectively an additional 1.1 sec of integration and is expected to saturate first
- early scans show increase in difference since middle increased more slowly, then became stable - onset of non-linearity?

W3 L0 frame [1.1 sec]



Diff = median of:
0.5*(left + right edges) - middle