



## WISE Operations MMR

# IPAC/WSDS Weekly Status ReportR. Cutri, T. Conrow, J. Bauer, R. Beck,D. Kirkpatrick, F. Masci, L. Yan



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Non-Linearity Validation



- Data from IOC linearity experiment has been analyzed
- Large scatter in photometry gave noisy ramps, severely affecting the NL estimates
- Conclusions:
  - flight non-linearity estimates not inconsistent with ground values, although uncertainties are large
  - agreement is best for W2, W3. Marginal for W1
  - source statistics are poor in W4
  - assume ground NL estimates (per pixel) for now
  - plan to revisit when better frame registration across all bands is available
  - will also be monitoring calibration Zero Points as more measurements become available





### NL model coefficients: flight vs ground





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-4e-04

0e+00 2e-04

NL Coeff

4e-04

0e+00

-2e-05

NL Coeff

2e-05



-4e-05

3



#### W1 calibrators vs SUTR







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#### W2 calibrators vs SUTR



W2 AP ∆m vs Scan-fr Predicted DN in CDS units using ground cal:  $DN_{obs} = DN_{lin} - 1.2 \times 10^{-5} DN_{lin}^2$ 0  $\langle DN_{lin} \rangle$  = 700DN per CDS read  $\mathrm{m}_{\mathrm{inst}}$ -1 $\mathrm{Im}_{\mathrm{true}}$ courtesy of Sherry Wheelock  $\Delta m (AP) =$ ŏ -2 -3



data:

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 $7.9 \times 10^{5}$ 

 $7.95 \times 10^{5}$ 

scan-fr

 $8 \times 10^{5}$ 

-4

 $8.05 \times 10^{5}$ 



#### W3 calibrators vs SUTR





W3 AP ∆m vs Scan-fr

Predicted DN in CDS units using ground cal:  $DN_{obs} = DN_{lin} - 7.9 \times 10^{-6} DN_{lin}^{2}$  $\langle DN_{lin} \rangle = 1000$ DN per CDS read

data: courtesy of Sherry Wheelock



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