A New IACHEC Working Group:
Charge Transfer Inefficiency
(and other CCD specific issues?)

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Charge Transfer Inefficiency

- CTI is common to all CCD instruments
  - Manufacturing defects and/or radiation damage
- Degrades performance, complicates calibration
  - Position-dependent gain, FWHM, QE uniformity
  - Degraded response
- Time-dependent calibration
- Numerous strategies for monitoring and mitigation
Possible topics for WG

• CTI measurement and monitoring
  – CTI evolution
    • Gradual increase? Step changes from solar events?
    • Removing effects of sacrificial charge from background
    • Removing temperature dependence
    • Radiation environment modeling & monitoring

• CTI modeling and correction

• CTI mitigation through charge injection

• Issues with the Si–K edge
Possible First Steps for new WG

• Create shared library of key papers and memos for each instrument (a wiki?)

• Comparison of CTI evolution, can differences all be accounted for by different CCD architecture, event processing and radiation environment?

• Come up with recommendations of best practices, lessons learned for future missions
CTI Working Group

Tuesday & Wednesday, 9:00–10:30am

Starr 209