

# A New IACHEC Working Group: Charge Transfer Inefficiency

(and other CCD specific  
issues?)

Catherine Grant (MIT Kavli  
Institute)

# 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

St

