*Questions, Comments and Answers following the presentation*

## *Photometric Calibration of HST/WFC3*

Susana Deustua

*Bristow: How much has WFC3 CTE degraded since launch? Is there a danger that it gets so bad that faint sources are lost altogether, or will flashing always protect against this?*

The effect of WFC3 Charge Transfer Efficiency degradation depends on the total charge deposited. For 5000e- the five year change since installation in HST is 0.99995 compared to 0.99999. For 160 electrons the change in the same time frame is 0.99999 to 0.9993 (see WFC3 ISR 2016-10, http://www.stsci.edu/hst/wfc3/documents/ISRs/WFC3-2016-10.pdf).
Flashing protects against CTI by adding background electrons. At present, the recommendation is to user post-flash so that there are at least 12 electrons per pixel (for WFC3). ACS requires a higher threshold. In addition, the WFC3 pipeline (see WFC3 ISR 2016-01 http://www.stsci.edu/hst/wfc3/documents/ISRs/WFC3-2016-01.pdf) also corrects for the CTE effects (sources closer to the readout amplifier are less affected than sources further away by charge transfer inefficiencies (WFC3 Instrument Handbook, Ch. 6.9)