

# Search for Non- Gaussianity: Dealing with Photo-Quasar Systematics



Anthony Pullen  
In collaboration with C. Hirata

Anthony Pullen: Caltech

# Photo-Calib Errors

# Photo-Calib Errors

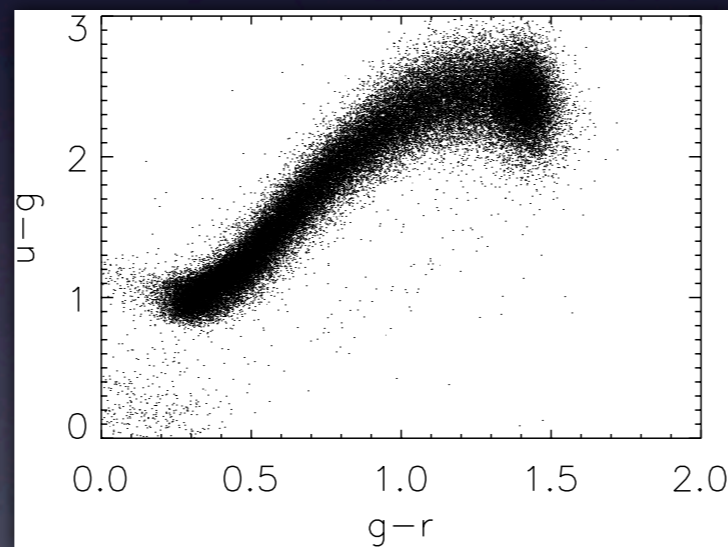
- Large-scale systematics contaminate scale-dependent bias

# Photo-Calib Errors

- Large-scale systematics contaminate scale-dependent bias
- Shift in color locus can affect number counts in matter tracers

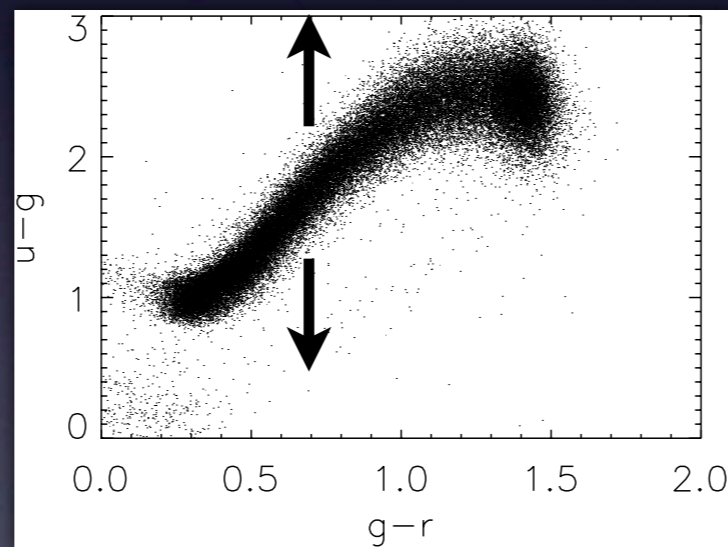
# Photo-Calib Errors

- Large-scale systematics contaminate scale-dependent bias
- Shift in color locus can affect number counts in matter tracers



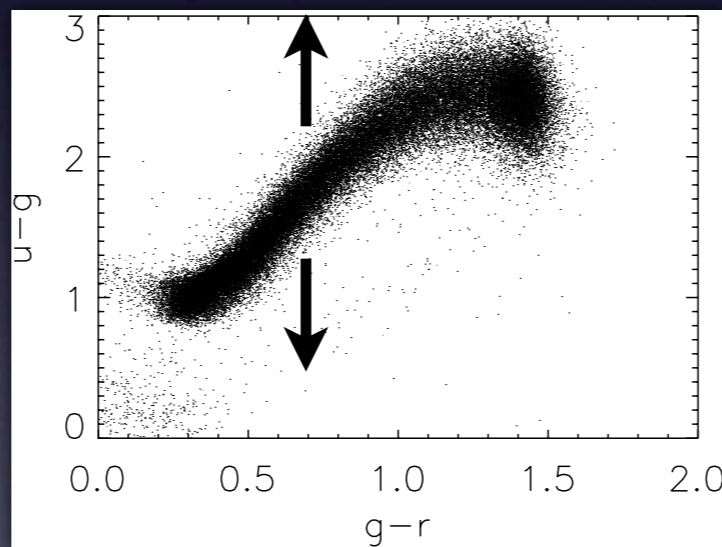
# Photo-Calib Errors

- Large-scale systematics contaminate scale-dependent bias
- Shift in color locus can affect number counts in matter tracers



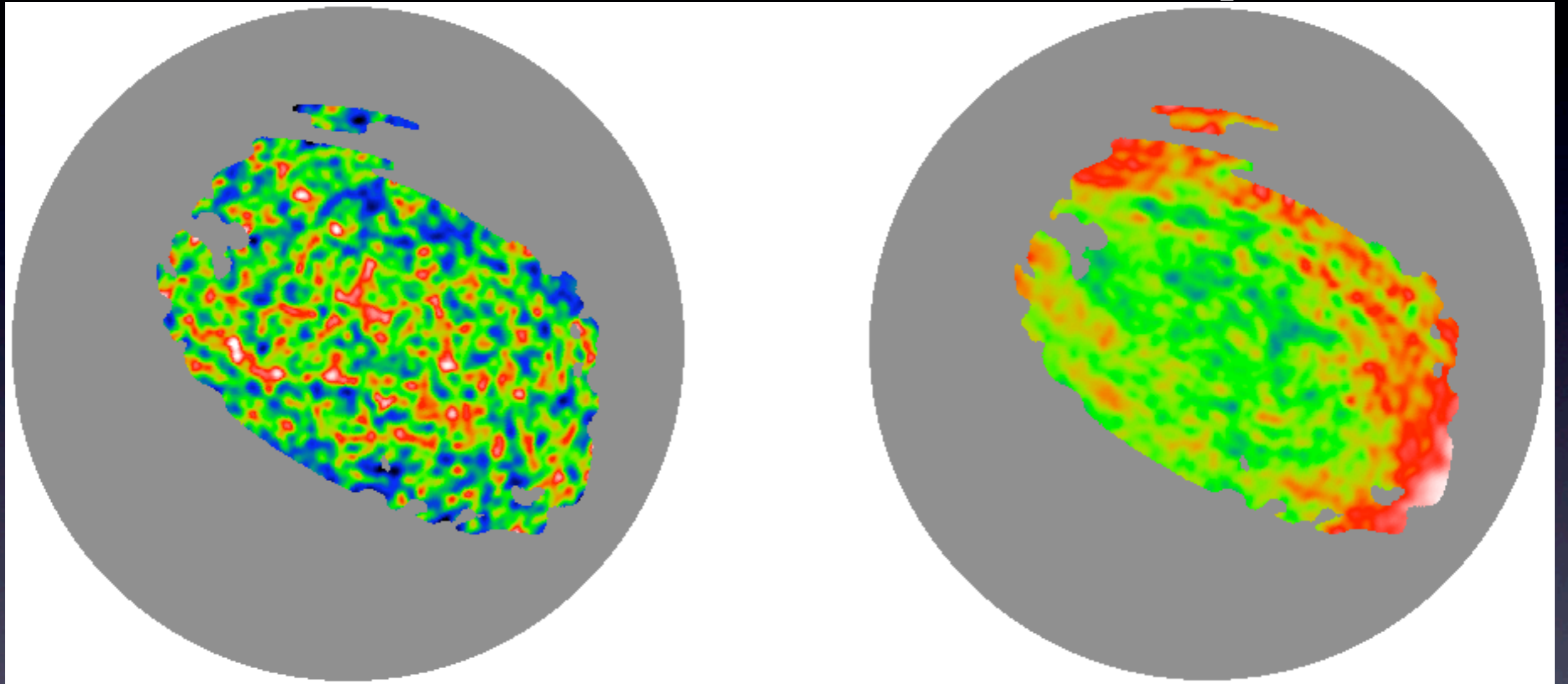
# Photo-Calib Errors

- Large-scale systematics contaminate scale-dependent bias
- Shift in color locus can affect number counts in matter tracers



- Test shift of stellar locus median with pixel in color space  $(u - g, g - r, r - i, i - z)$

# SDSS Quasar Sample



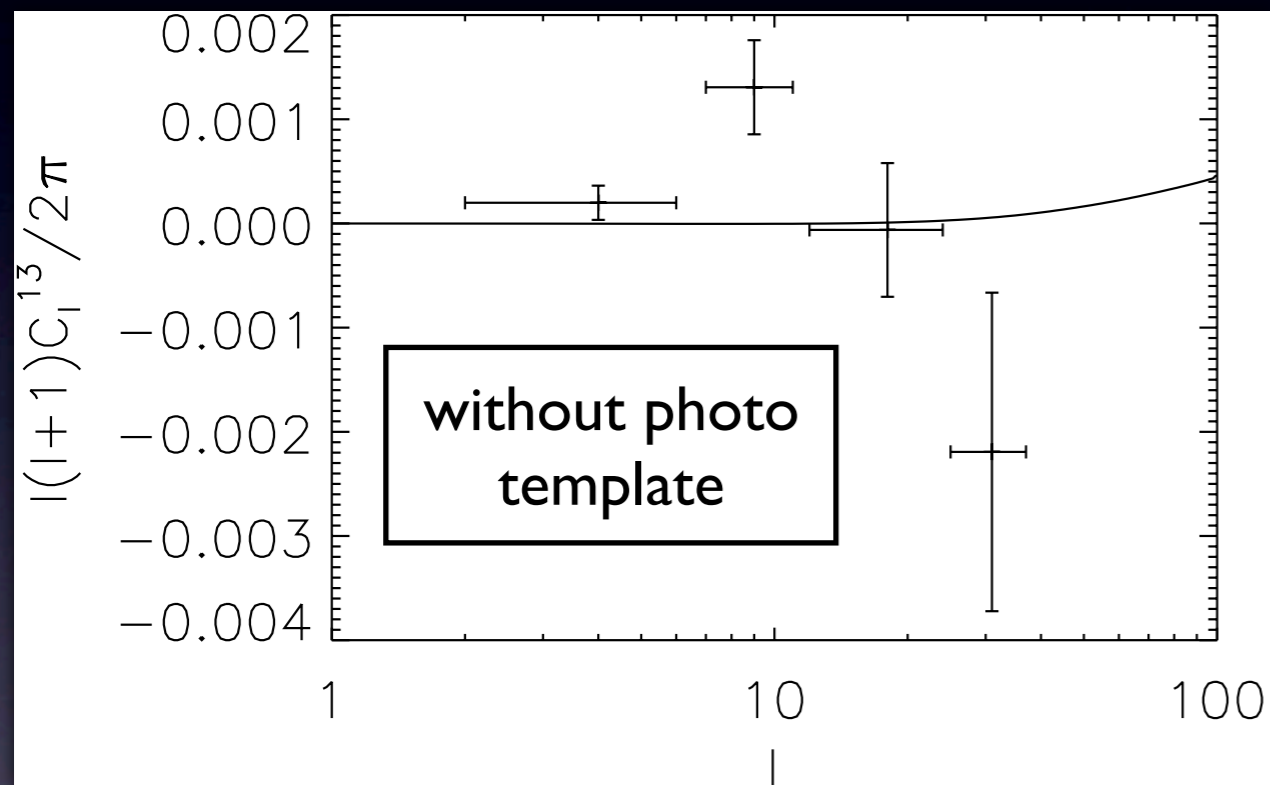
QSO overdensity

$\Delta_{\text{med}}(\text{stellar locus})$

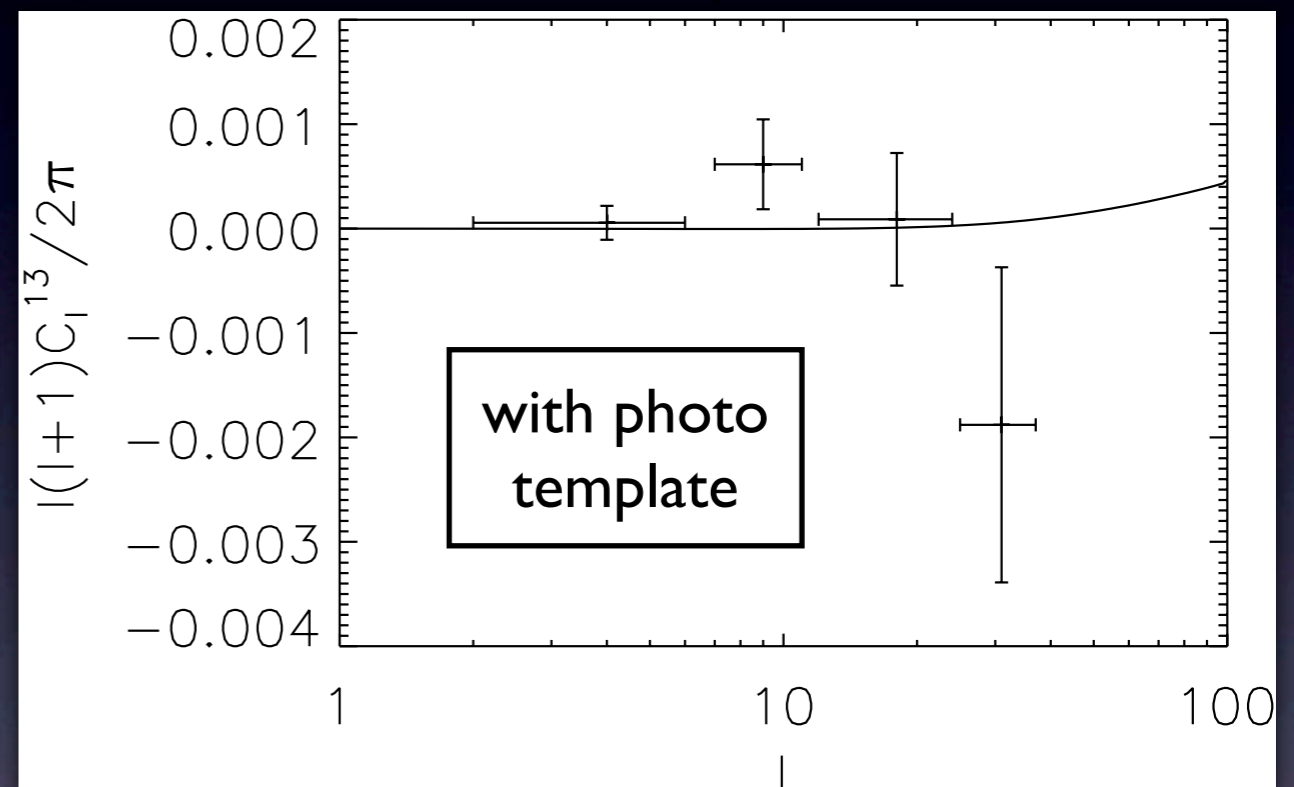
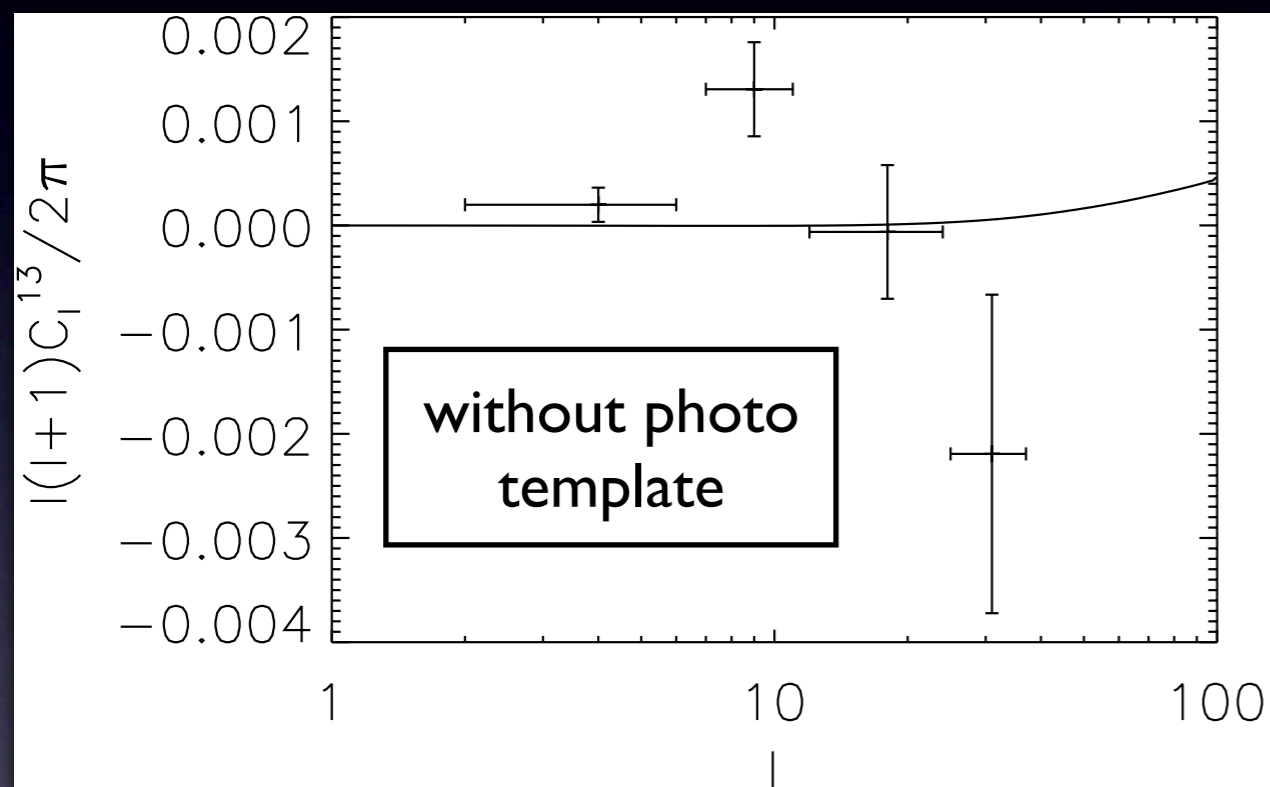


# Cross Correlation Test

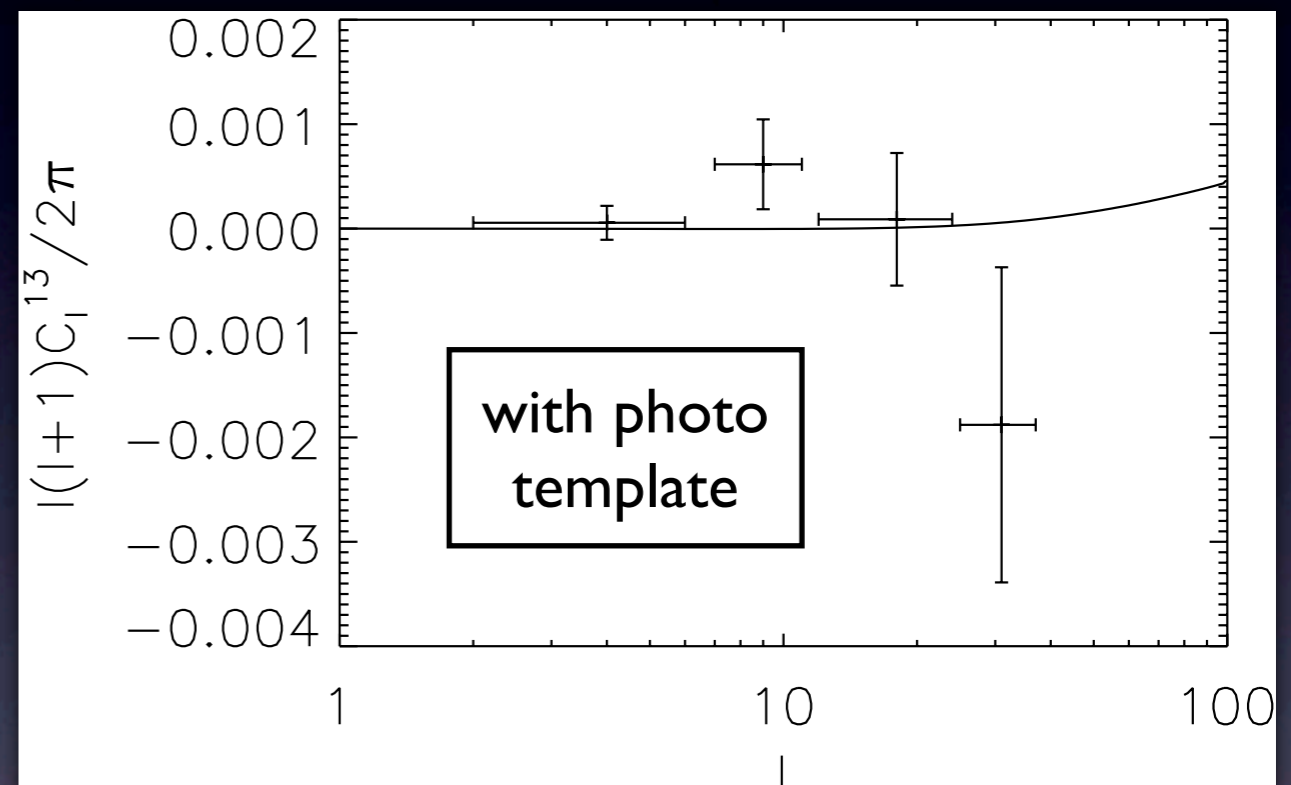
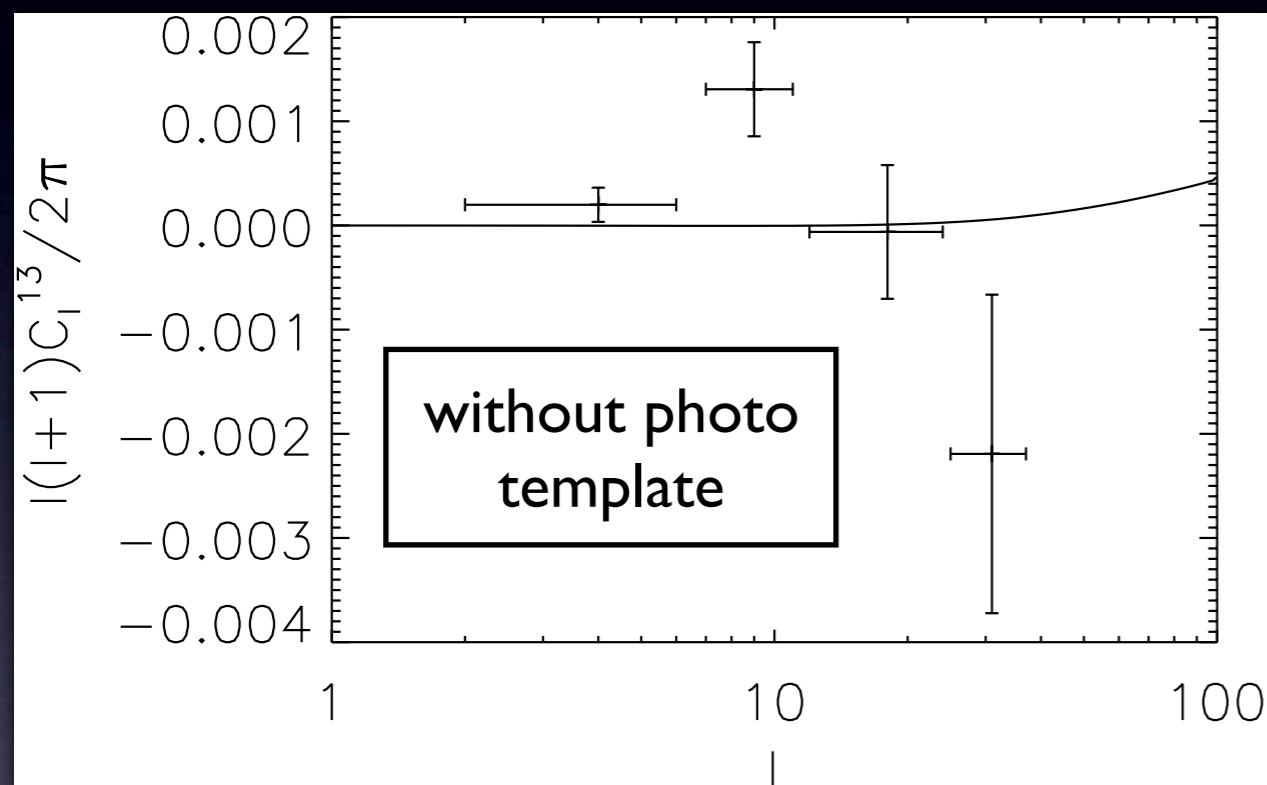
# Cross Correlation Test



# Cross Correlation Test



# Cross Correlation Test



Removes apparent large-scale correlations