Summary of Discussion Session #5 (November 8, 2012)

"Contamination and data analysis issues"

Question: What do the current data tell us?

Answer: The current measurements of the local-form f_{NL} include:

WMAP7: $f_{NL} = 32 \pm 21$
SDSS3 QSO sample 1(+): $f_{NL} = 40 \pm 15$ [PRELIMINARY]
SDSS3 QSO sample 2(x): $f_{NL} = 30 \pm 15$ [PRELIMINARY]
Cross-correlation(*): $f_{NL} = 4 \pm 10$ [PRELIMINARY]

(+) Sample 1: BOSS targeting sample, which is from DR8 imaging, but based on Bovy et al. 2012, aimed at z>2.2 QSOs, but includes lower redshifts one too.

(x) Sample 2: Based on Ho, Hirata et al. 2008 method, based on DR8 imaging, aimed at lower redshift quasars (similar to DR7 Gordon Richard's sample)

(*) The cross-correlation analysis includes all possible cross-correlations between 2MASS; SDSS main galaxies DR8; SDSS Luminous Red Galaxies DR8; NRAO VLA Sky Survey; HEAO's X-ray background; and SDSS QSO sample DR7; as well as the following auto correlations: 2MASS; SDSS main; SDSS LRG; and HEAO.

Question: How comfortable are we with the current results?

Answer: Very comfortable with the WMAP result, but for the large-scale structure measurements (using the scale-dependent bias), the statistical and systematic errors are becoming comparable.

- The error bar on f_{NL} from the cross-correlation analysis can be inflated by a factor of three if the uncertainty in the redshift distribution of galaxies, N(z), is completely marginalized over.

- The color offset of the SDSS3 data is the dominant systematic error for the SDSS3 QSO results.

- The systematic error on the upcoming Planck result due to foreground seems small: ±2 on f_{NL}.