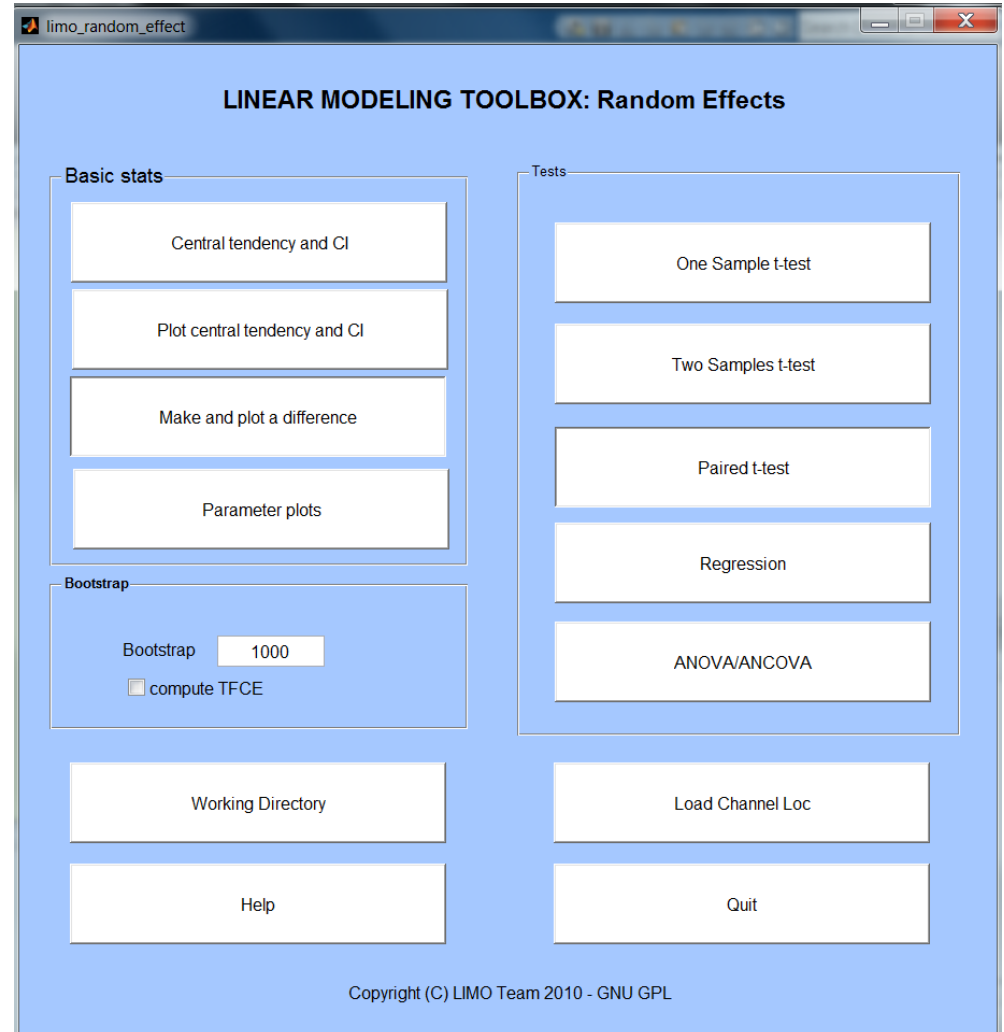


LIMO BASIC STATS

Cyril Pernet

LIMO BASIC STATS

- Under the Random effect GUI because of dealing within and between subjects' data.

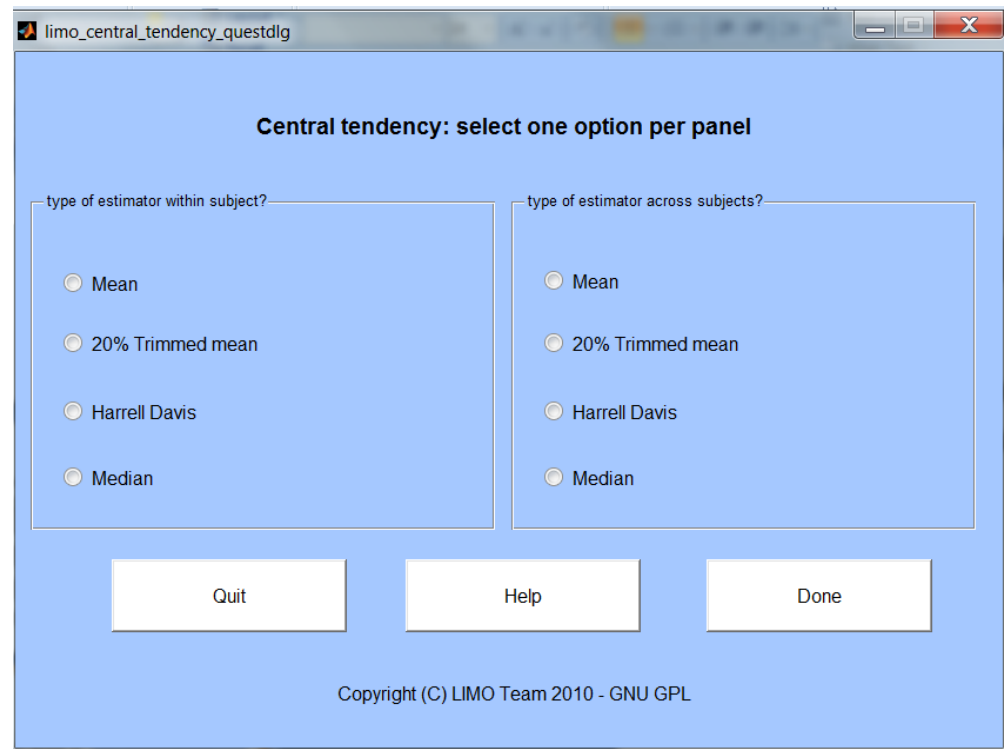


LIMO BASIC STATS

- The **central tendency and CI** button allows performing 'averages' of data (either single trials for a subject or parameters across groups). This is called central tendency because you can choose to use standard means (or weighted if available) but also trimmed means, median or Harell Davis estimators. In each case a robust confidence interval is provided → **Plot central tendency and CI**
- **Make and plot a difference** allows computing the difference between two data set and plot this difference with bootstrapped confidence intervals (not corrected for multiple comparisons).
- **Parameter plots**: also to do standard box plots or correlation analyses.

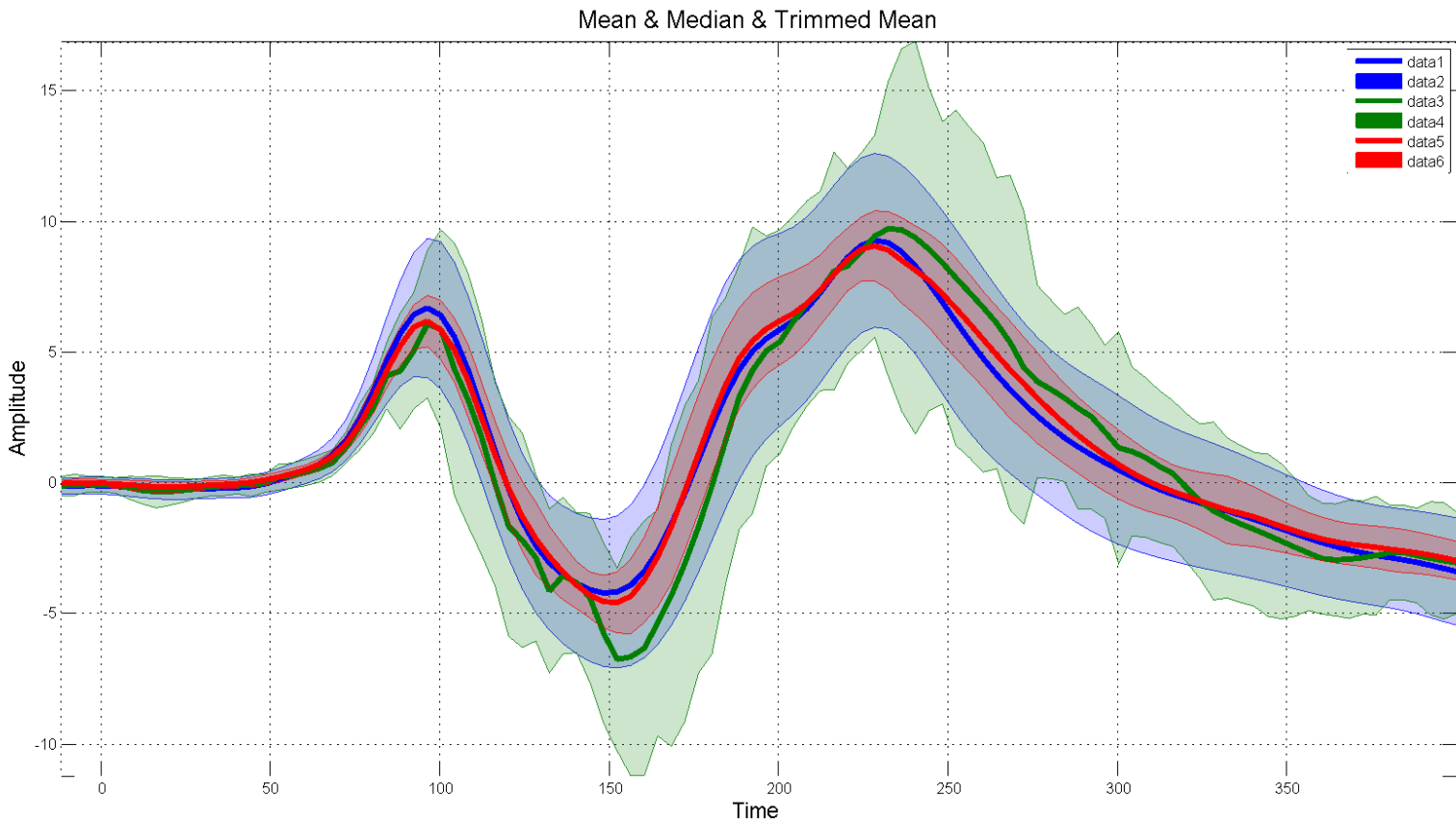
central tendency and CI

- Compute estimators of central tendency: (weighted) mean, trimmed mean (i.e. Remove 20% lowest values and 20% highest values), Mid-Decile Harrell Davis or Median
- Computed at subject (i.e. across trials) and group (i.e. across subjects) level



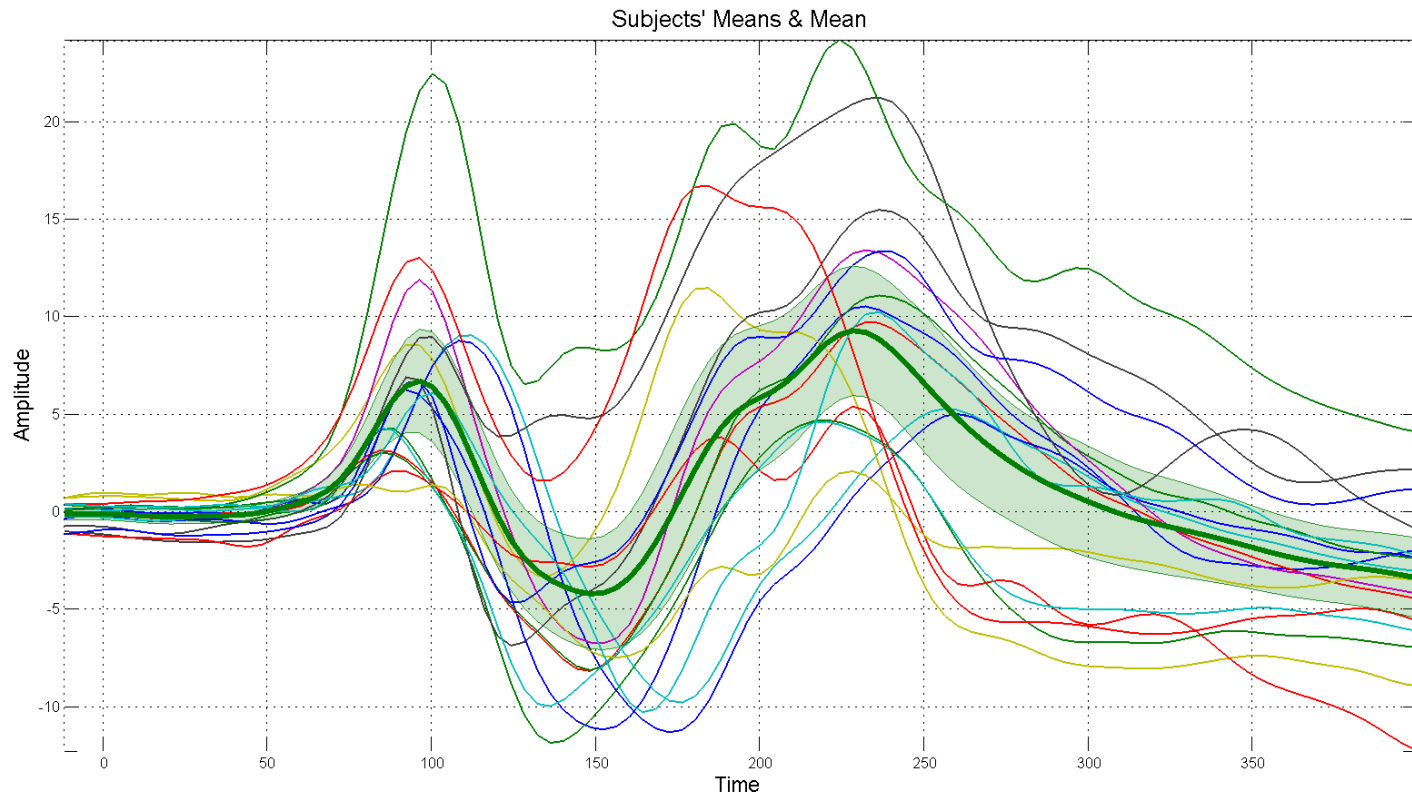
Plot central tendency and CI

- Add results from computations to a single plot allowing, eg. to plot X conditions, or for a given condition mean vs. trimmed mean vs. median



Plot central tendency and CI

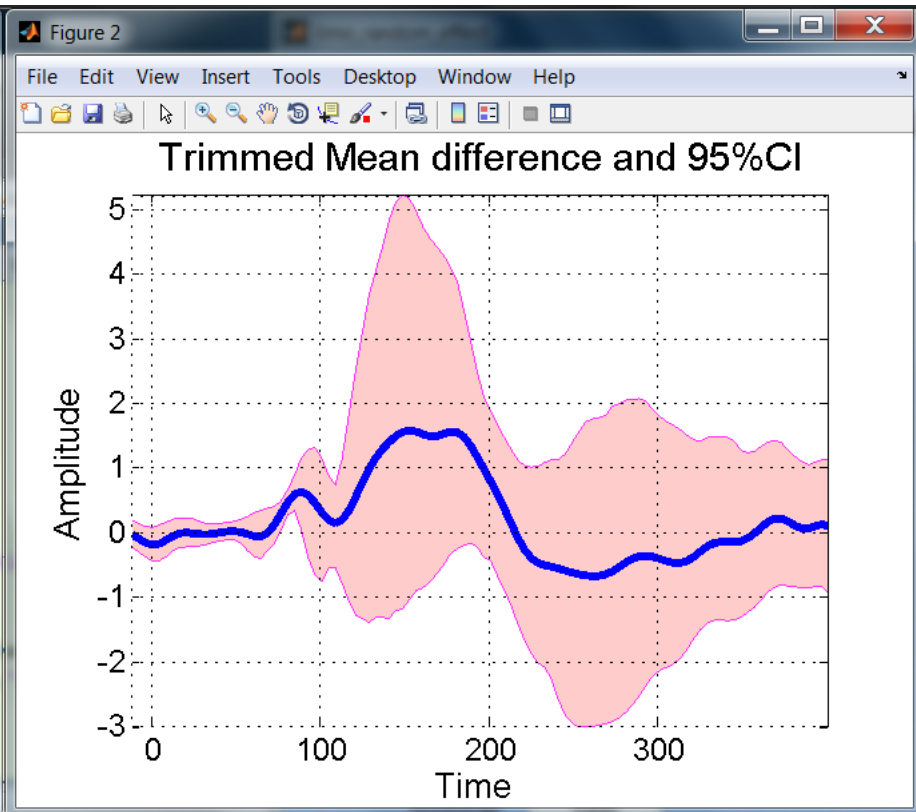
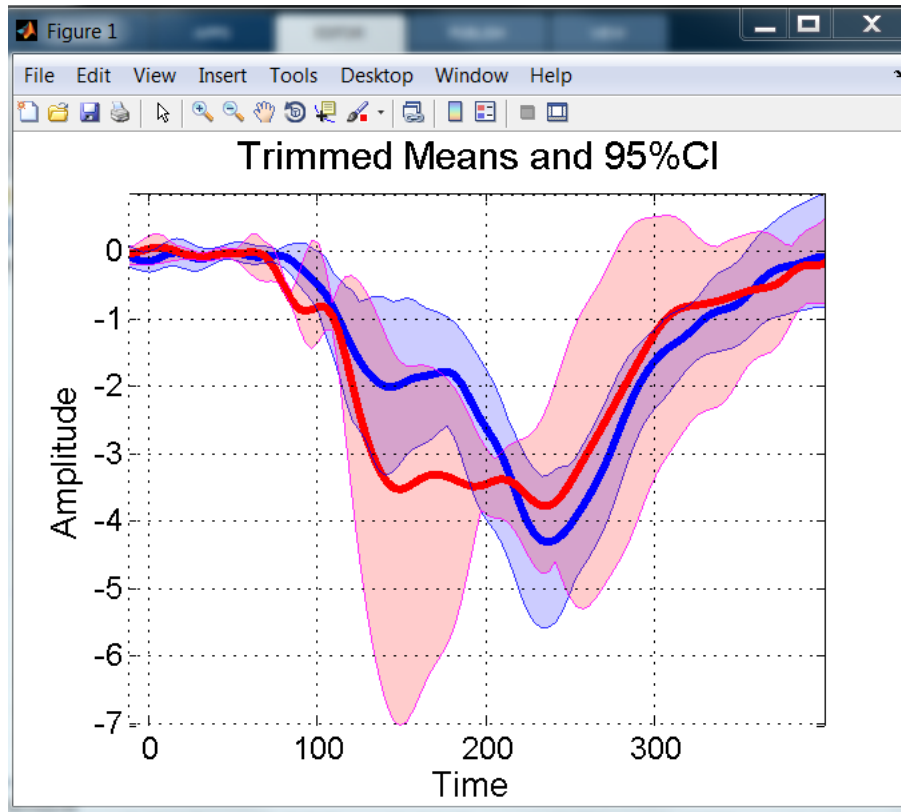
- Also quite useful to visualize if, at the group level, an estimator captures well subjects differences



Here, the mean across subjects doesn't capture well the subjects' variability

Make and plot a difference

- 20% trimmed means per group or condition
- 20% trimmed mean of the difference



Parameter plots

- Some extra visualization tools to explore beta parameters

