**How to get usable signal, from Raw Data to fMRI**

Anatomical Preprocessing

* Skull Stripping
* Segmenting White and Gray Matter

Functional Preprocessing

* Slice Time Correction
* Motion Correction
* Functional-Anatomical Cross-Modal Registration

<http://surfer.nmr.mgh.harvard.edu/fswiki/FsFastFunctionalConnectivityWalkthrough>

* To add, for bandwidths and place to put TR

**With Usable Signal, what can we do now?**

Resting State fMRI analysis techniques: <https://link-springer-com.ezp-prod1.hul.harvard.edu/content/pdf/10.1007%2Fs10334-010-0228-5.pdf>

* Methods of Processing
  + seed-based functional connectivity,
  + independent component analysis,
  + clustering,
  + pattern classification,
  + graph theory,
  + two “local” methods
* “In surveying these methods, we address their **underlying assumptions**, **methodologies**, and **novel applications**”

Ella: “I’m sure we’ll find something because processing of fMRI data is so behind the processing of economics or other fields”

7/18/17

Slice Time Correction: <http://www.humanbrainmapping.org/files/2015/Ed%20Materials/FSL_PreProcessing_Pipeline_OHBM15_Jenkinson.pdf>