10:30 - 12: Intro to ANTs for Medical Imaging

- Theoretical framework: "Integrative pattern theory"

- Discussion: Definition of images (physical space, transformation groups, pairwise mapping, groupwise mapping, etc.)

- Discussion and working examples:

    o   mapping biomedical images for statistical analysis and quantification: image registration

    o   labeling biomedical images for statistical analysis and quantification: image segmentation

    o   template construction: toward statistical representations of image populations

    o   joint label fusion for anatomical labeling

    o   functional MRI quantification - time permitting https://github.com/stnava/structuralFunctionalJointRegistration