ASSIGNMENT 6 (due 30.11.2021)

1.FIGURE (1-3)
Pick three electrodes. Compute time-frequency plots of ITPC (see code RSII_211123a.m) and decibel-corrected power for these electrodes using either complex Morlet wavelet convolution over 20 frequencies. Plot the results side by side for each electrode (power and ITPC in subplots; one figure for each electrode). Are the patterns of results from ITPC and power generally similar or generally different? Do the results look more similar at some electrodes and less similar at other electrodes?
3 points

2.FIGURE(4)
Select one seed electrode and frequency = 10Hz and compute phase-based connectivity between that seed electrode and every other electrode. Use two methods for phase-based connectivity nectivity that were presented in RSII_211123b.m, one that is volume conduction independent (e.g., PLI) and one that could produce spurious connectivity due to volume conduction (e.g., ISPC). Do not apply a baseline subtraction. Make topographical plots of seeded connectivity in a time window of your choice (e.g., 300-350 ms). What are the similarities and differences between results from the two methods, and what might be the reasons for the similarities and differences?
4 points

3. (OPTIONAL) From the results in exercise 2 above, pick one "target" electrode (any electrode other than the seed) and provide evidence, using additional data analyses if necessary, for or against that measure of phase-based connectivity between that electrode and the seed being driven by volume conduction.
4 points