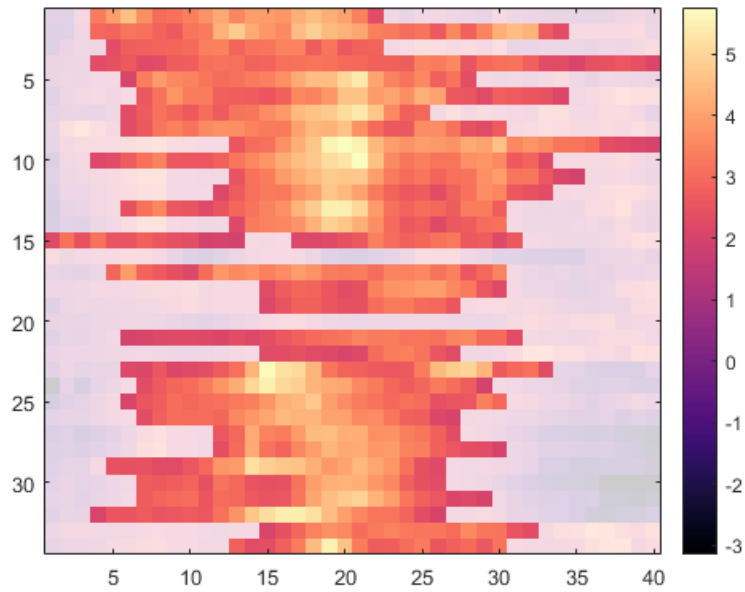
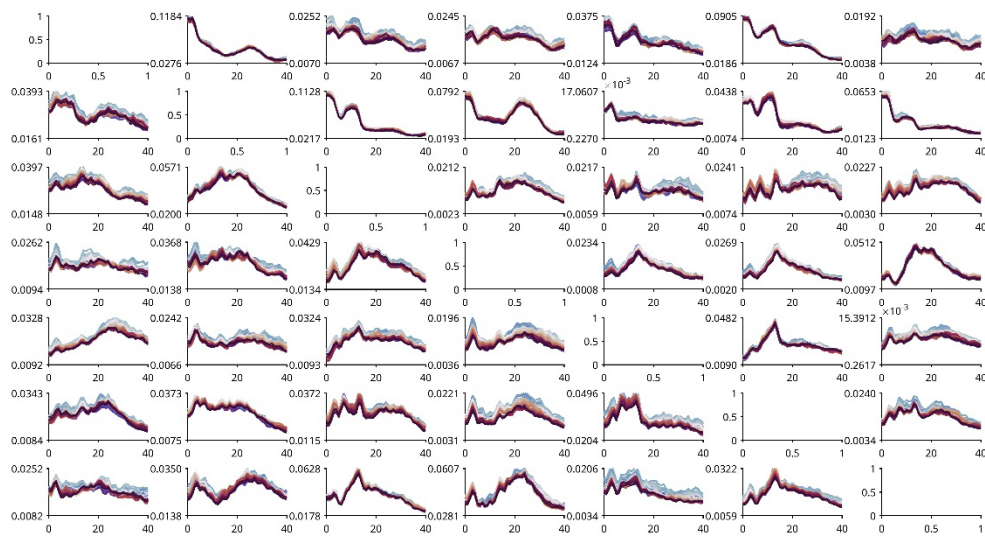


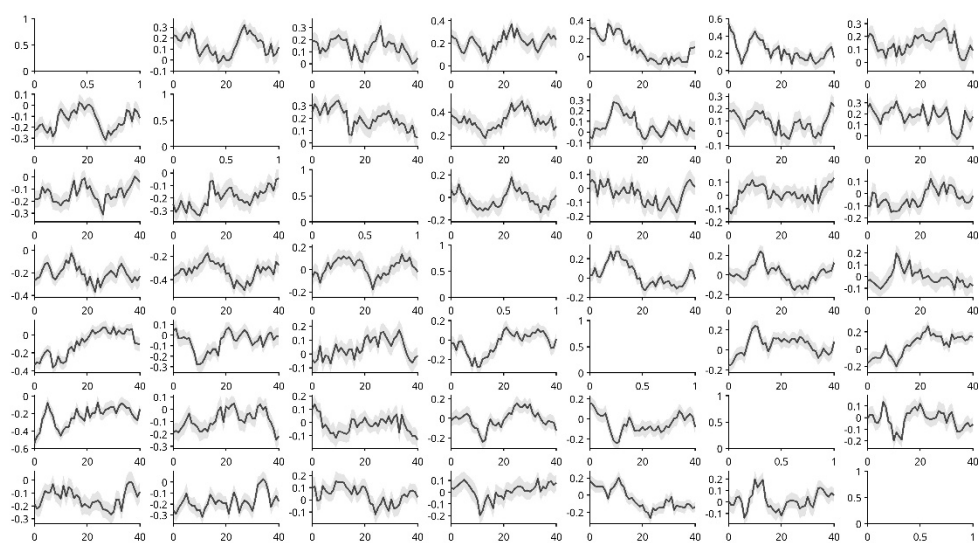
Supplementary Information



Supplementary Figure S1. Power spectra for each ROI without removal of the $1/f$ component through spectral whitening.



Supplementary Figure S2. DAI spectra as a function of respiratory phase for each combination of ROIs.



Supplementary Figure S3. DAI spectra of regression weights (Granger causality as a function of respiration phase) for each combination of ROIs.