

Density of local correlations varies extensively with attentive tracking

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Motion Object Tracking (MOT) Stimuli

16 Balls
area = 12° x 12°, 400 x 400 pixels
v = 25 pixels/s

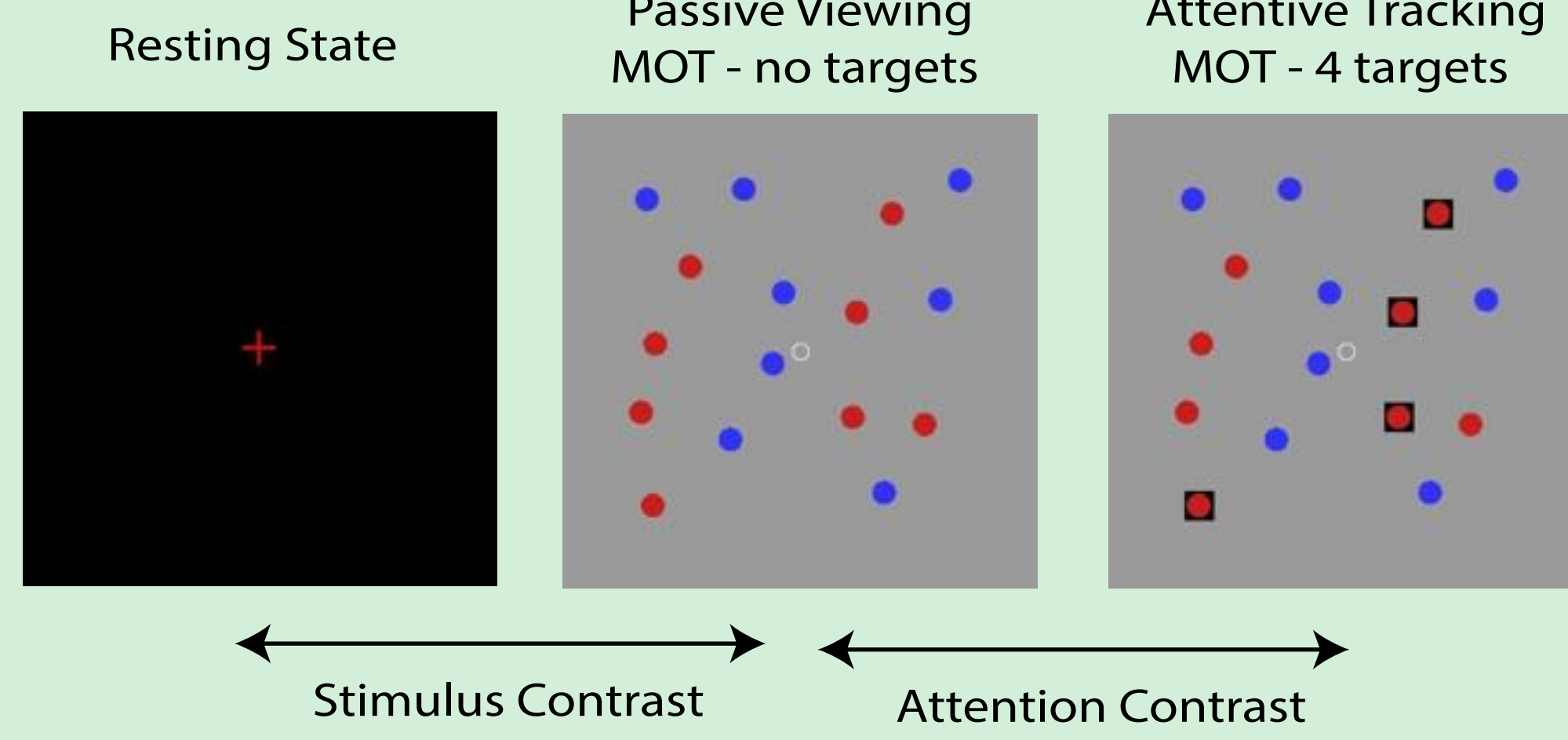
Protocol

5 min/run
4 runs/condition
8 subjects

fMRI

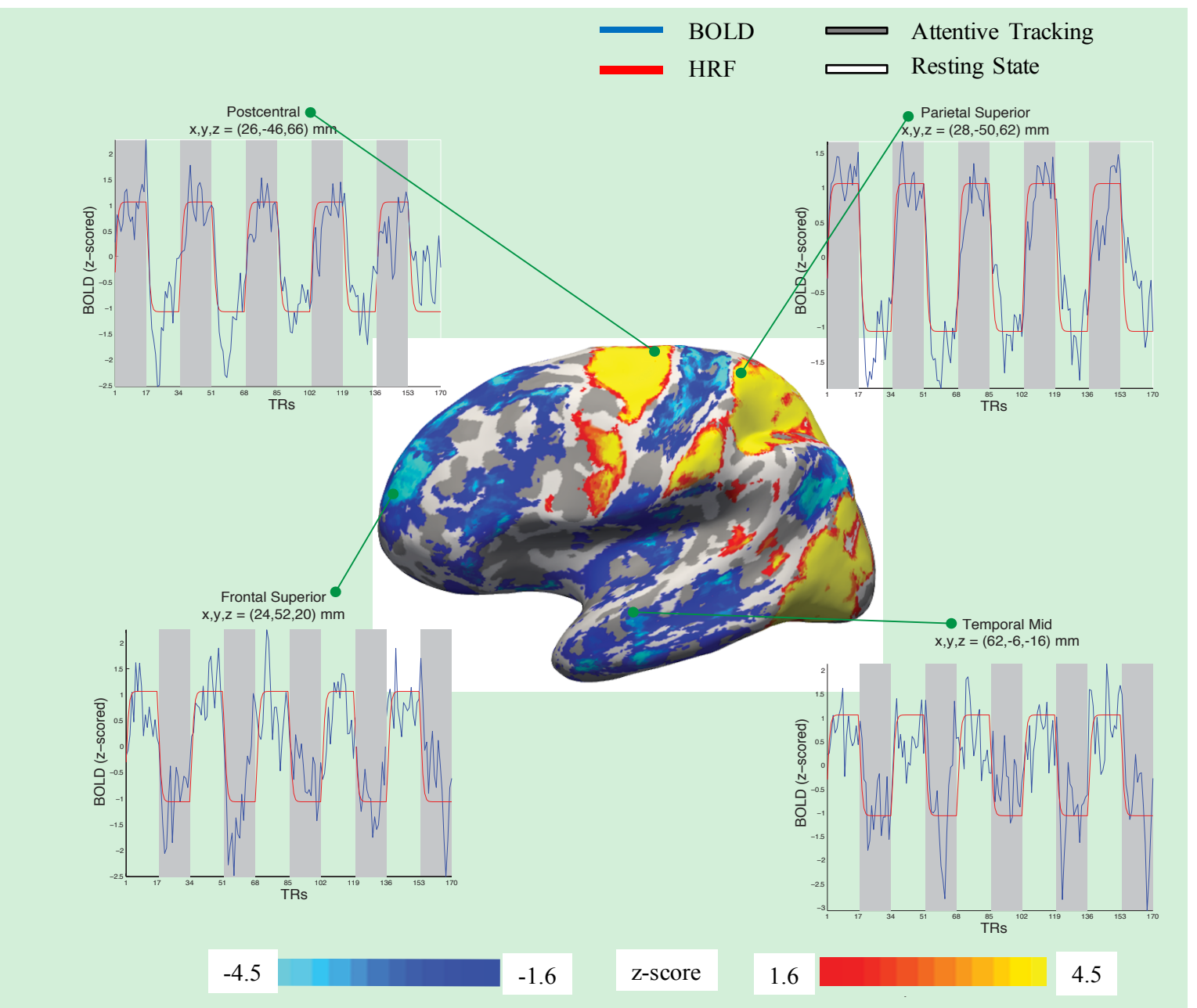
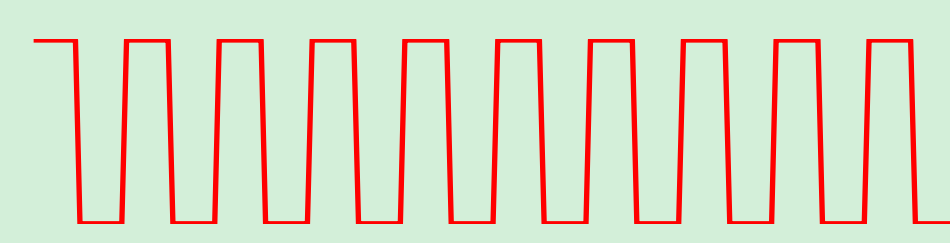
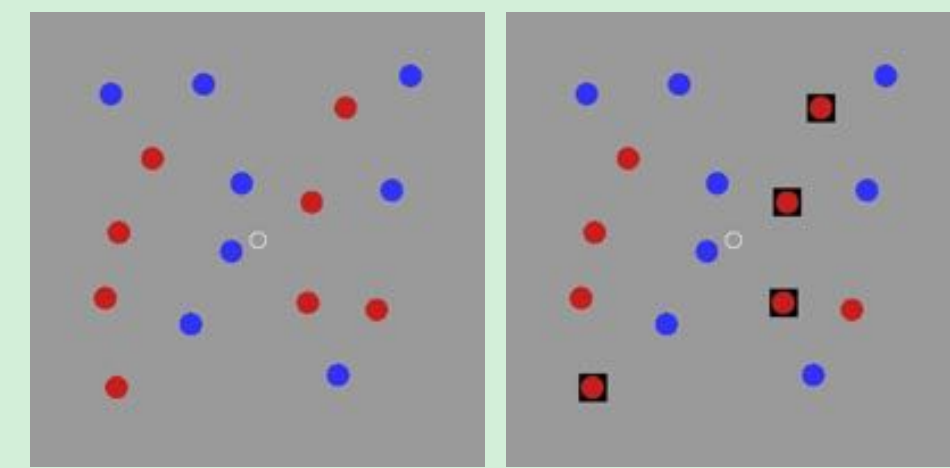
3 T Siemens scanner
TR = 2s
voxel = 3 x 3 x 3.6 mm³

Three Steady-State Conditions



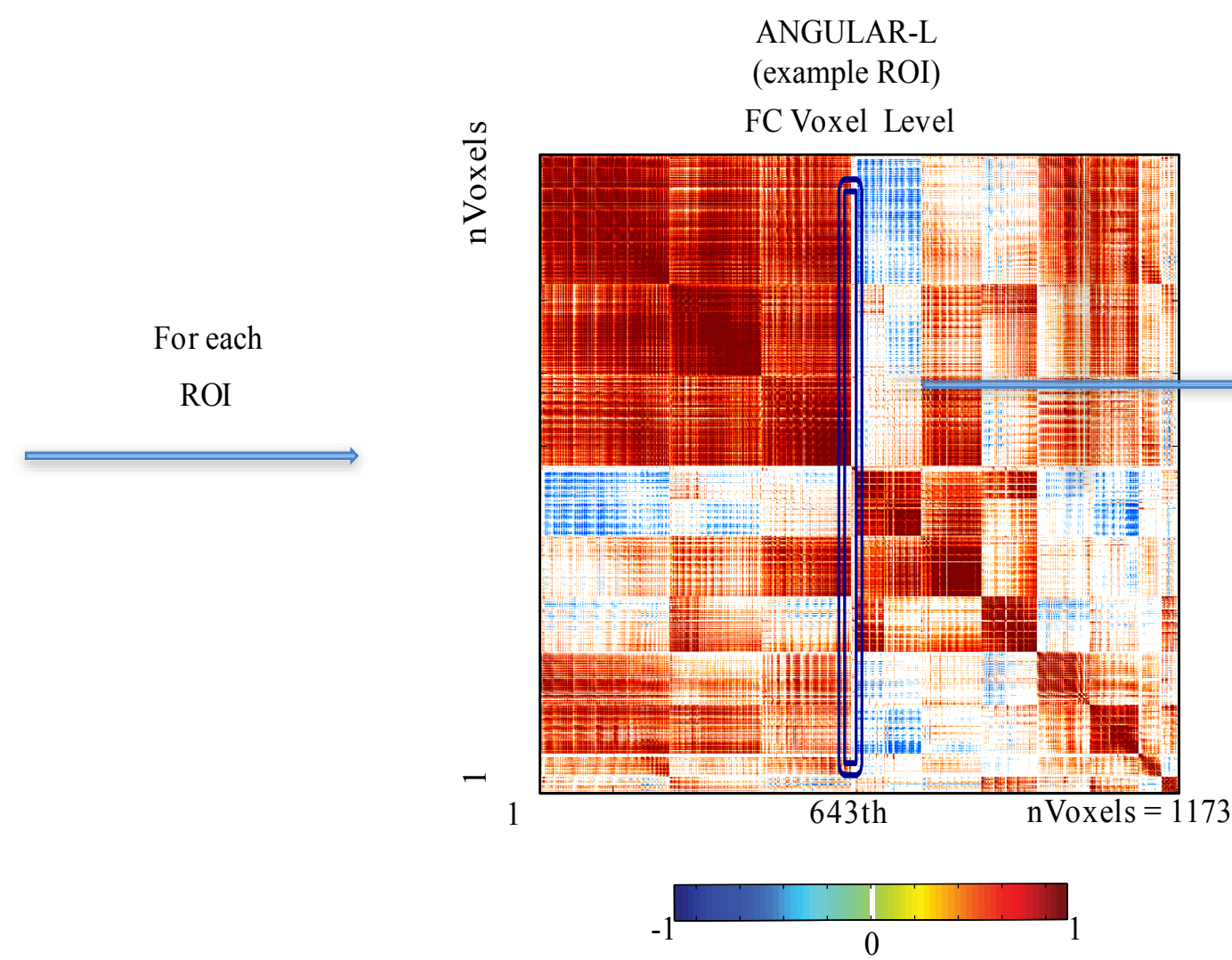
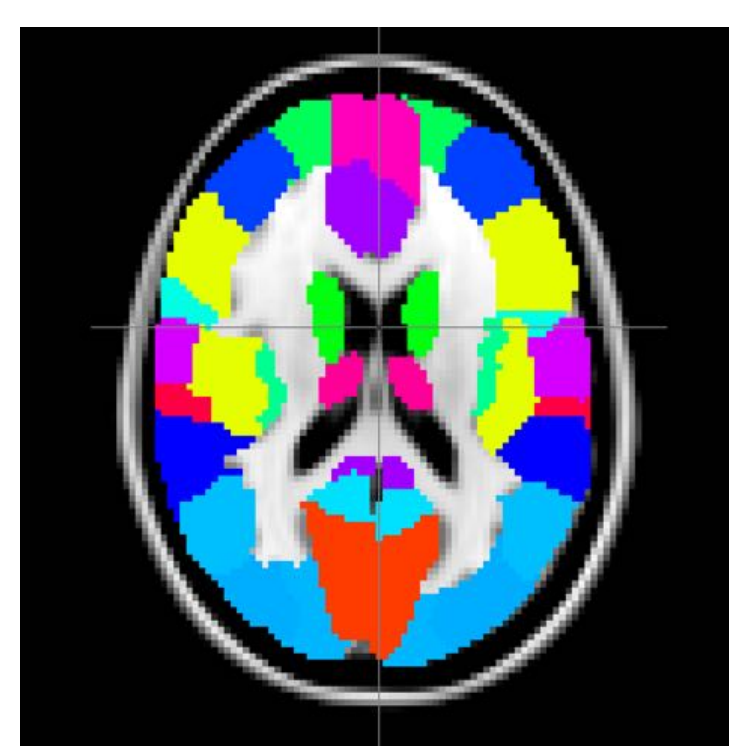
Interleaved Control

10 Trials (30s each)
alternate Passive - Tracking

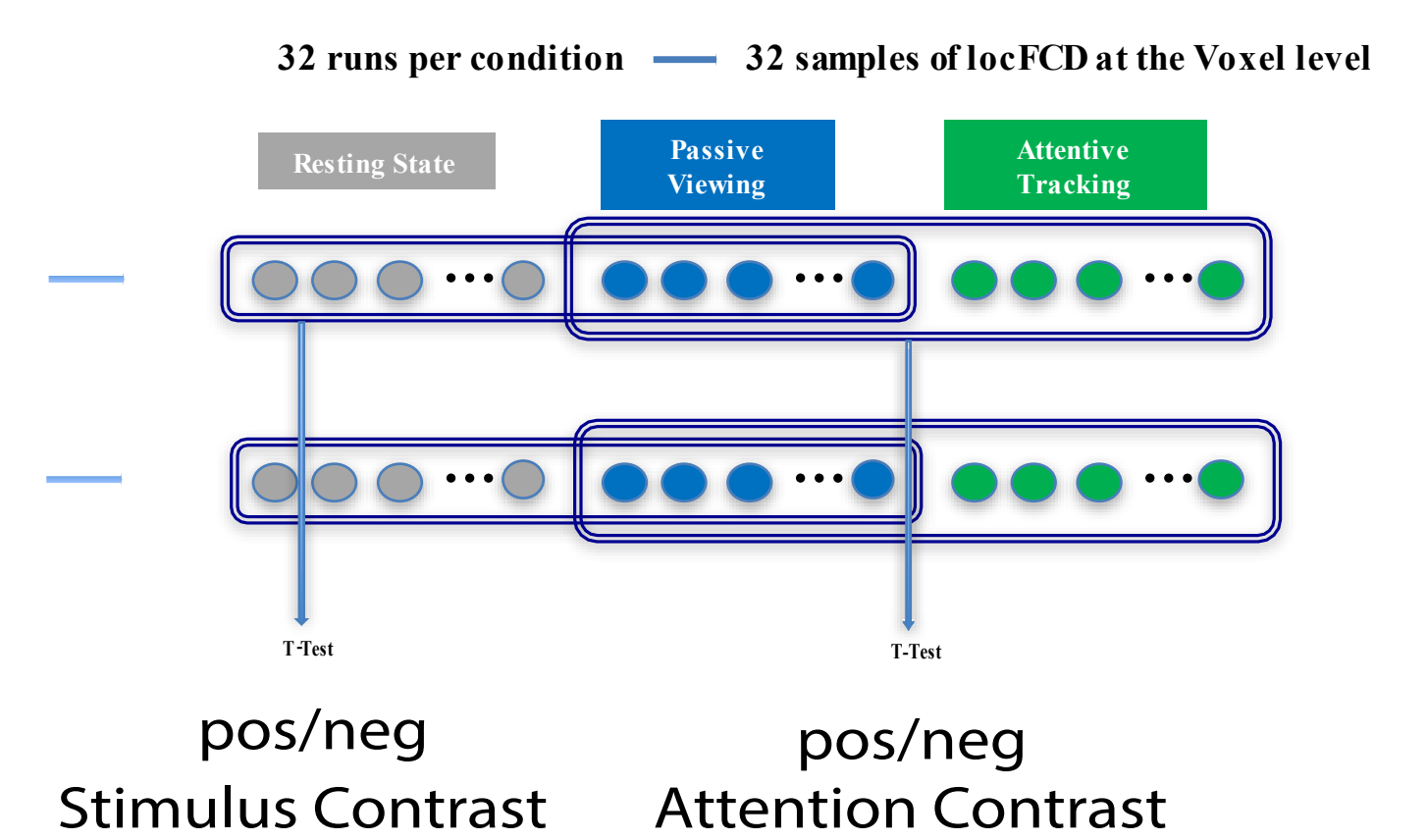


local Functional Connectivity Density (locFCD) - voxel level (160,990 voxels)

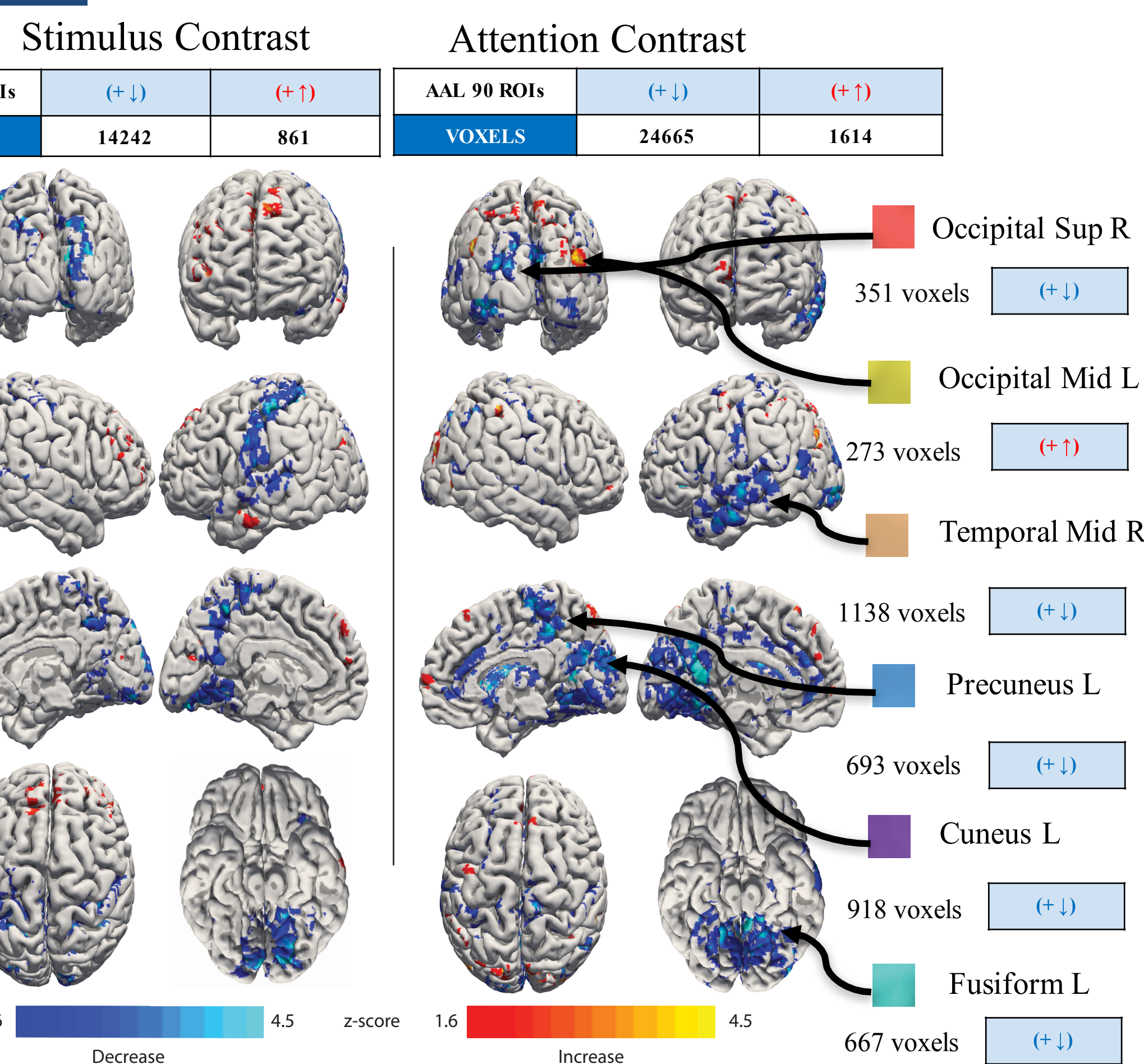
AAL Parcellation (90 ROIs)
(~250 to 5k voxels per ROI)



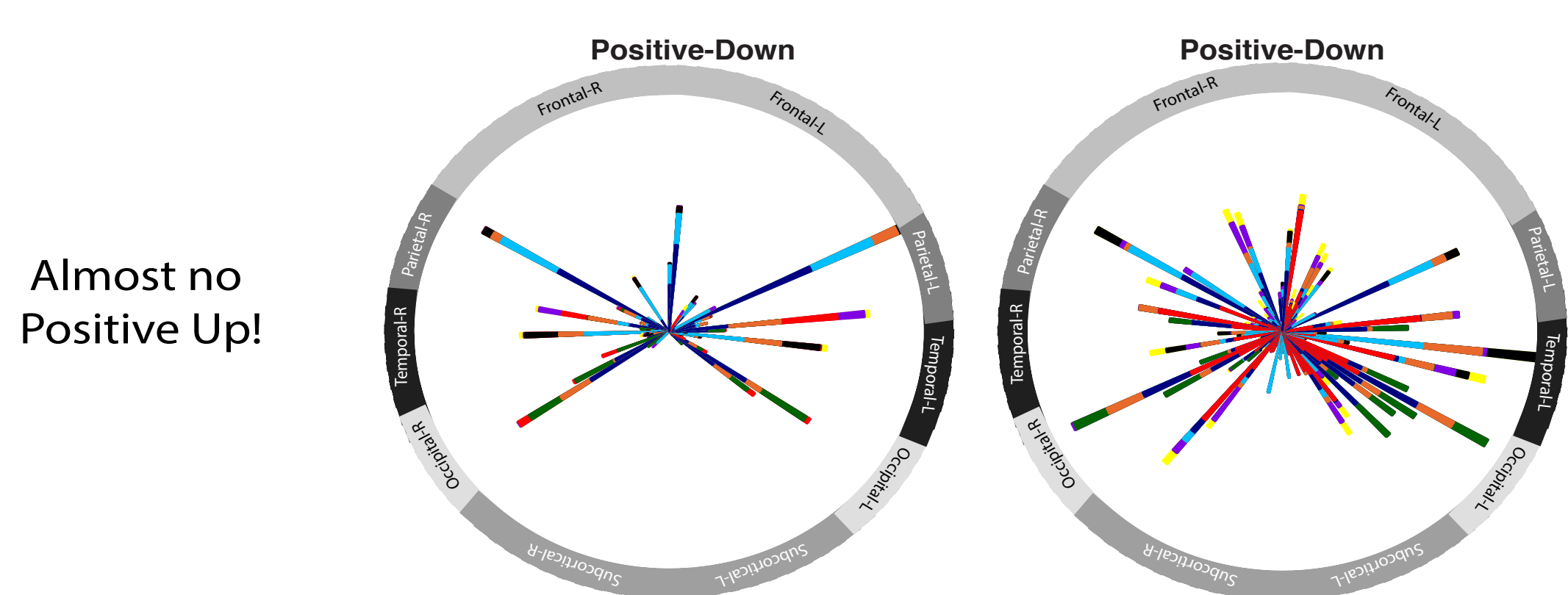
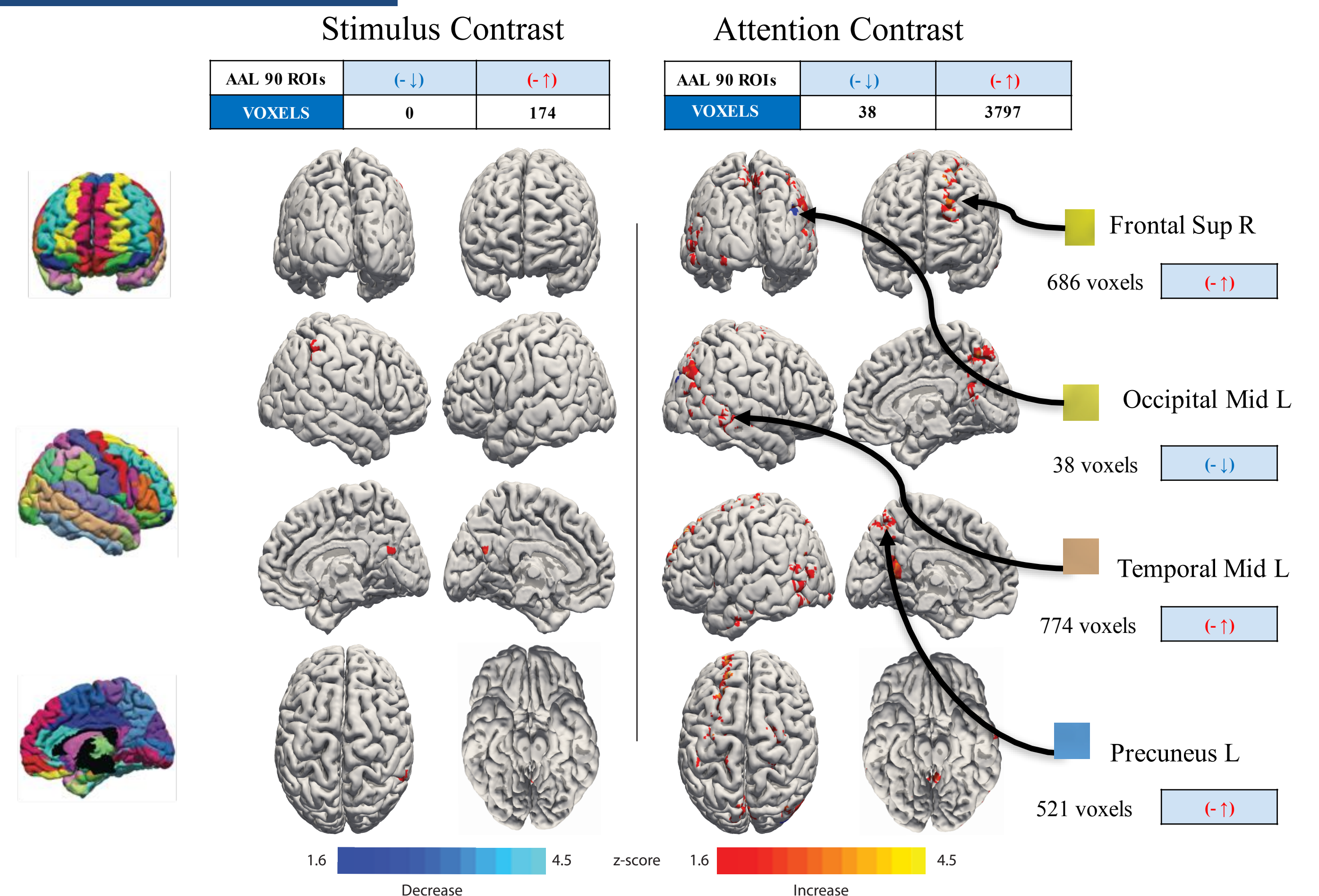
Example:
N = 44 negative correlations
P = 186 positive correlations
Correlation Significance (p < 0.01)



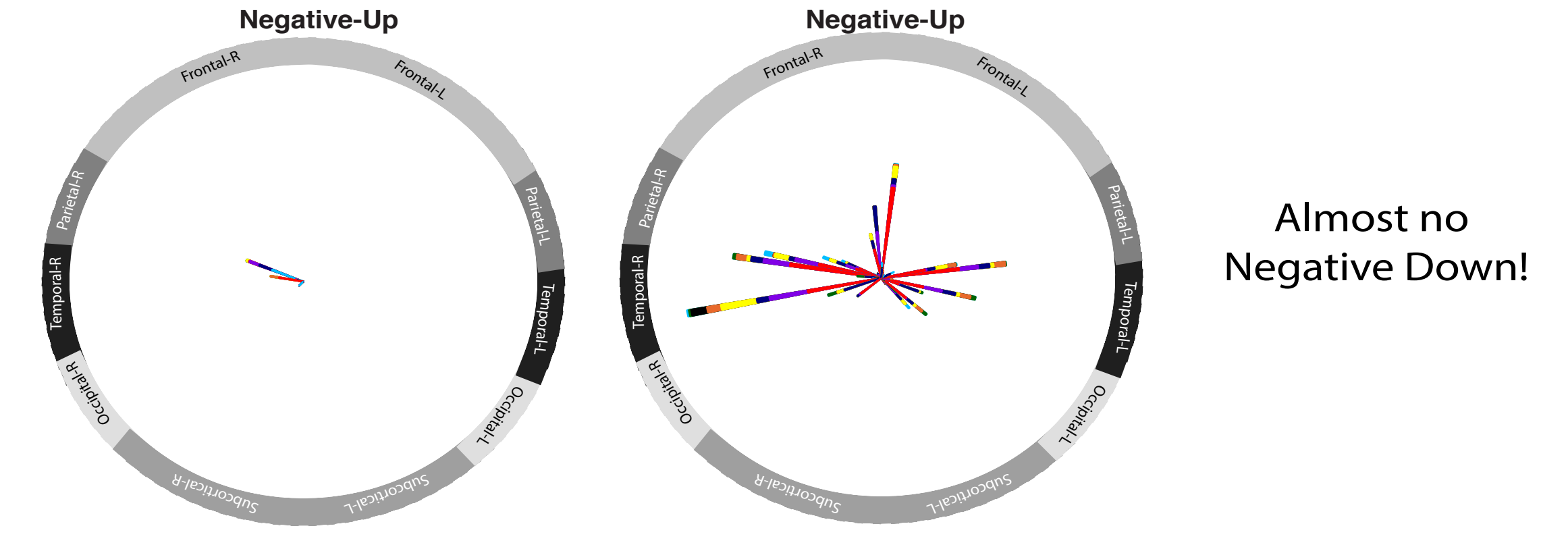
△ IFCD Positive



△ IFCD Negative



- DAN
- VAN
- SMN
- VIS
- FPC
- LAN
- AUD
- DMN



global Functional Connectivity- cluster level (758 clusters, ~200 voxels per cluster)

Mean Global Correlation

Global Correlation Contrast

