

Figure Legends – Supplementary material

Supplementary Figure 1: *Visual stimuli.* (a) Examples of stimuli used for polar angle mapping. A smoothly rotating wedge stimulus containing either moving dots or a flickering checkerboard was used in the attentionotopy (lefthand panel) and retinotopy (righthand panel) studies, respectively. The wedge stimuli alternated between clockwise and counterclockwise rotation from run to run. (b) Examples of stimuli used for eccentricity mapping spanning the central 15°. A ring filled with either bouncing balls or flickering checkerboards was used in the attentionotopy and retinotopy studies, respectively. The ring stimuli alternated between expanding and contracting motion from run-to-run. (c) Examples of object stimuli.

Supplementary Figure 2: *Behavioral results obtained in attentionotopy studies.* (a) Accuracy during the polar angle experiment relative to polar angle location (blue line). Group results (N=8). The shading between the red and blue lines denotes the standard error. (b) Accuracy performance plotted as a function of eccentricity. Due to a frequency of luminance changes occurring outside the viewable field when the ring was between 13° to 15°, behavioral data were inconclusive for this range and are not shown.

Supplementary Figure 3: *Polar angle and eccentricity maps of ventral visual cortex (right hemisphere) for three additional subjects (S5, S6, S7).* In the righthand panel, black outlines denote the extent of each individual subject's PPA (thresholded at $p <$

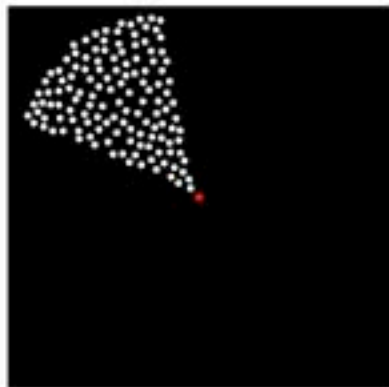
.0001, uncorrected) and white outlines denote face-selective cortex (thresholded at $p < .0001$, uncorrected). For other conventions see Figure 1.

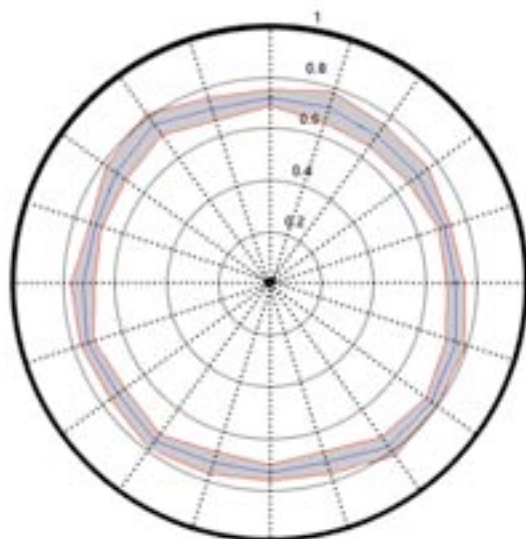
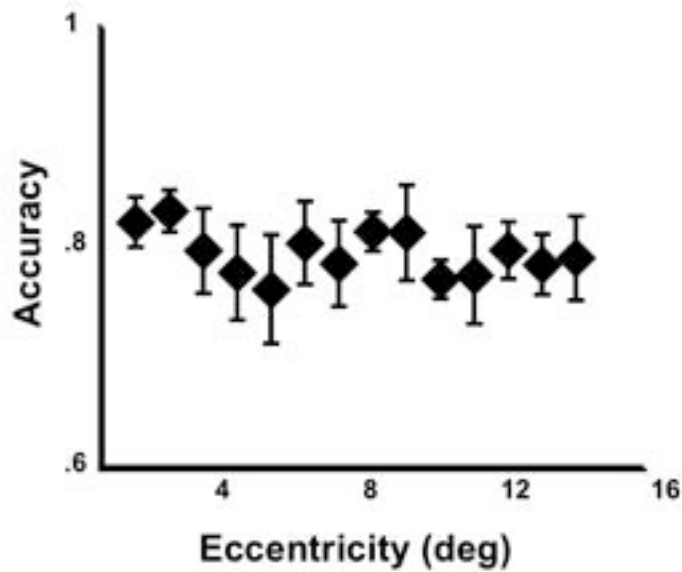
Supplementary Figure 4: *Polar angle and eccentricity maps of ventral visual cortex (left hemisphere) for three additional subjects (S5, S6, S7). All conventions as in Figure 2 and Supplemental Figure 3.*

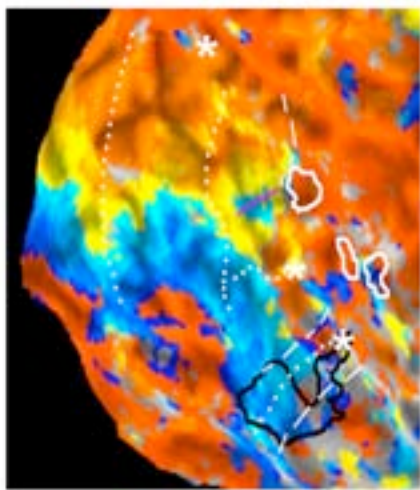
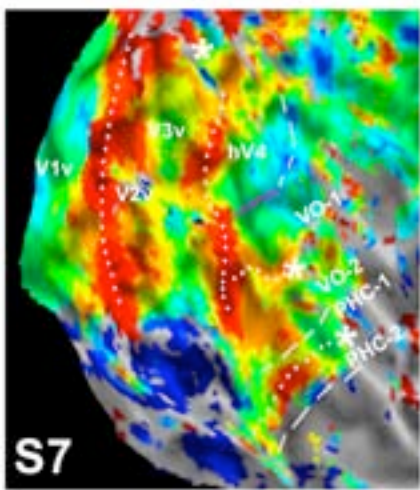
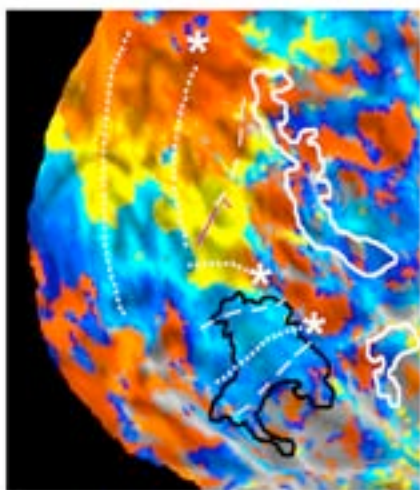
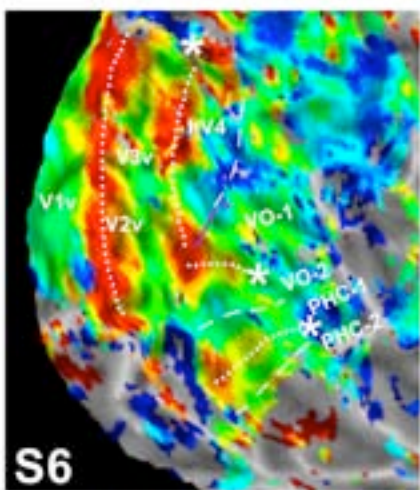
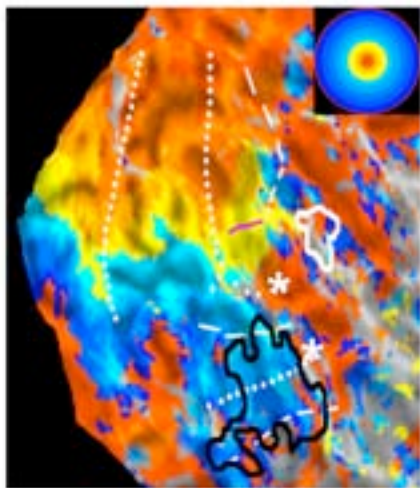
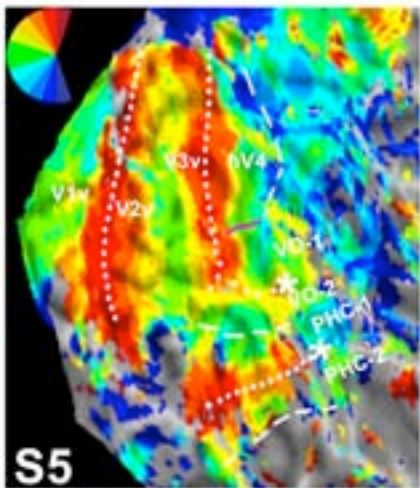
Supplementary Figure 5: *Polar angle and eccentricity maps of ventral visual cortex (right hemisphere) for one additional subject (S4) and (left hemisphere) for three additional subjects (S3, S4, S8). All conventions as in Figure 2 and Supplemental Figure 3 & 4.*

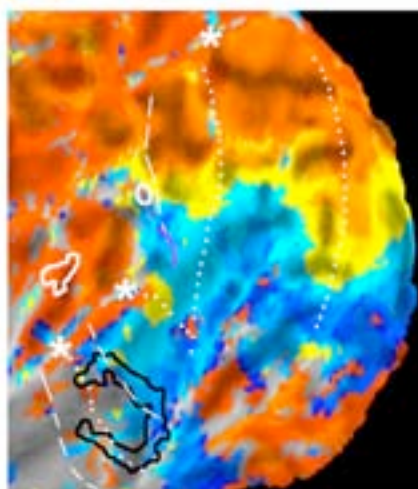
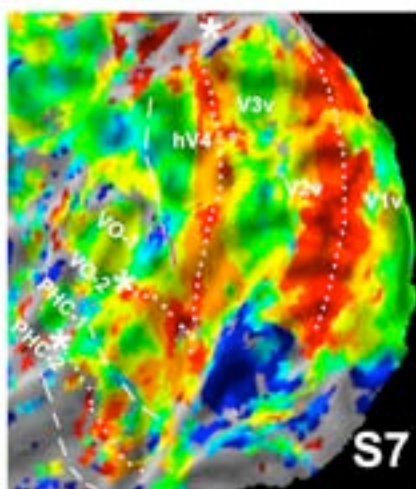
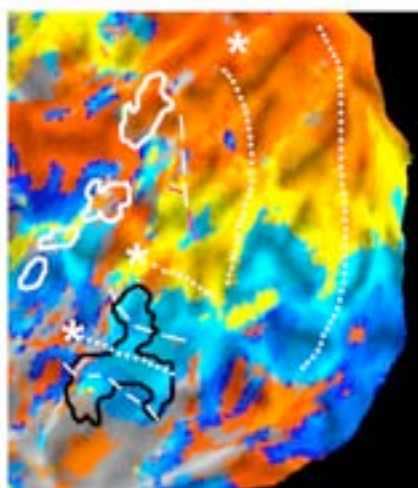
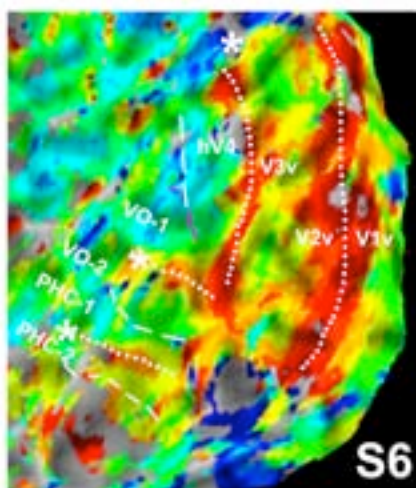
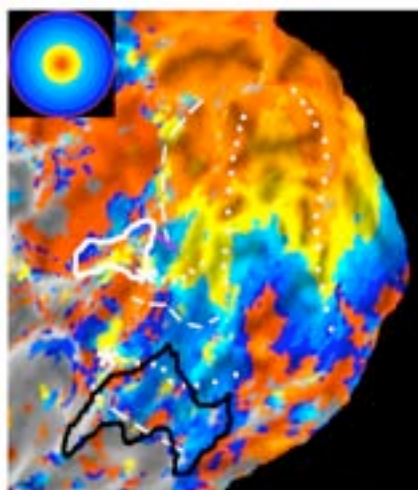
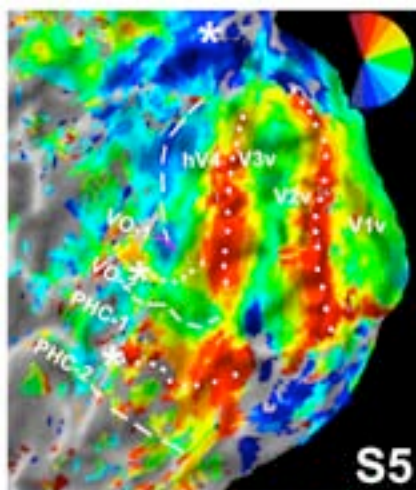
Supplementary Figure 6: *Comparison of maps obtained in retinotopy and attentionotopy studies for two additional subjects. Polar angle and eccentricity maps of RH for S5 and S8 of ventral visual cortex (lefthand panel). The righthand panel shows histograms of alignment indices ($AI = 1 - |\Delta\phi| / \pi$) for PHC-1 and PHC-2. For other conventions see Figure 7.*

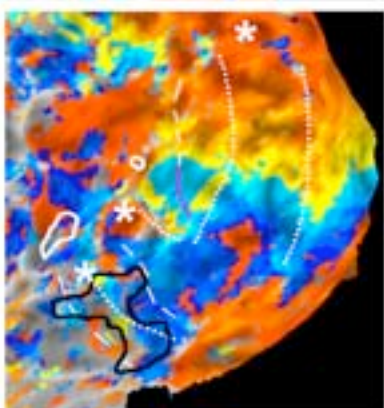
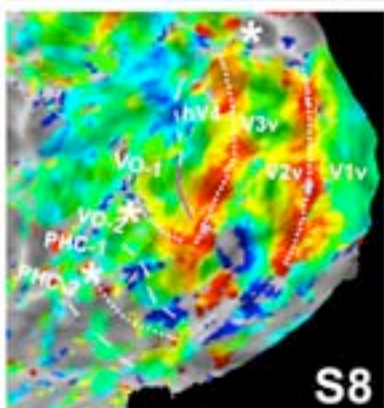
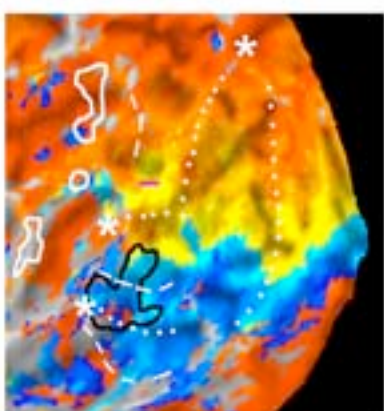
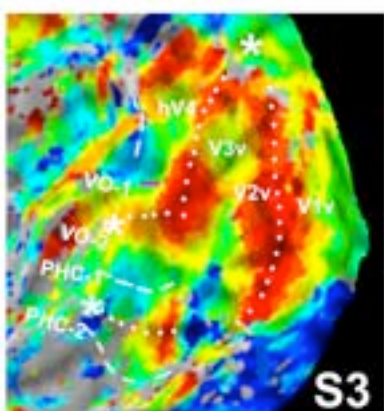
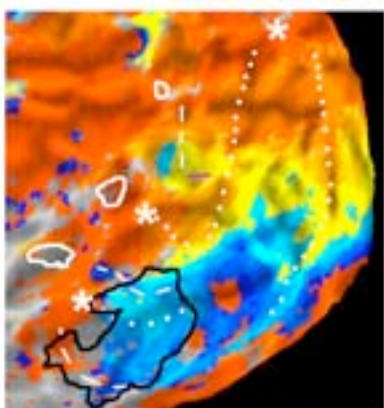
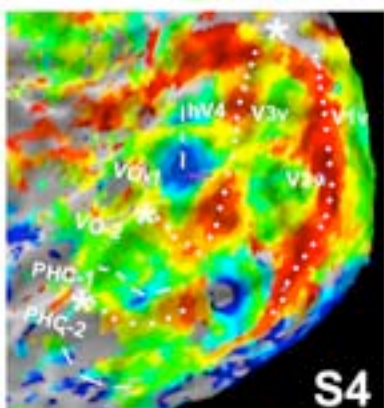
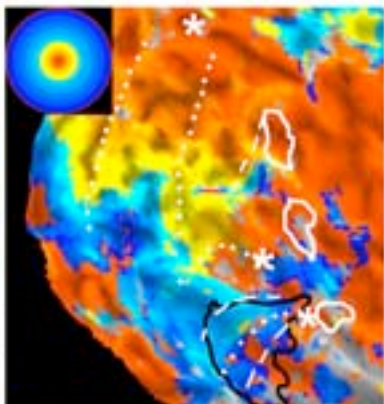
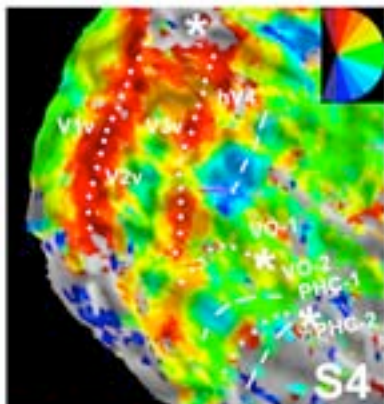
Supplementary Figure 7: *Comparison of maps obtained in original and rescan attentionotopy studies for two subjects. Polar angle and eccentricity maps of LH for S1 and RH of S8 for ventral visual cortex (lefthand panel). The righthand panel shows histograms of alignment indices ($AI = 1 - |\Delta\phi| / \pi$) for PHC-1 and PHC-2. The lower panel displays the combined vertex plots for subjects S1 & S8 for PHC-1 and PHC-2. For other conventions see Figure 7.*

A**B****C**

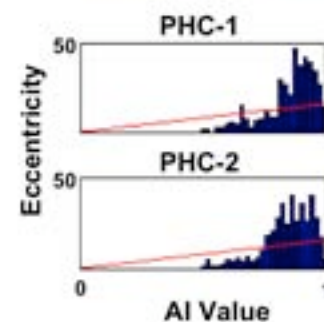
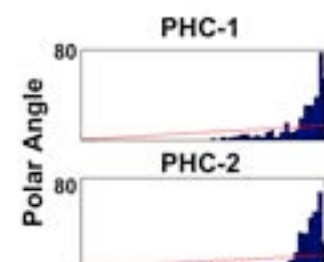
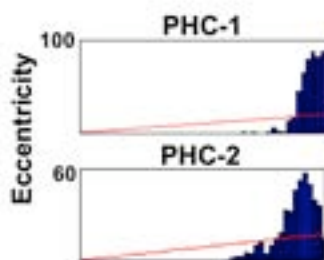
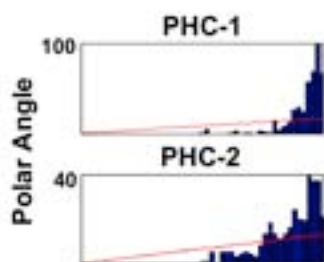
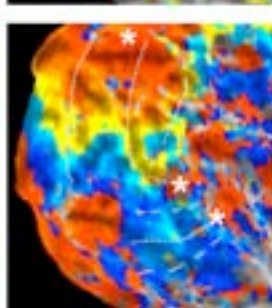
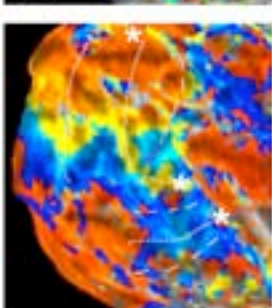
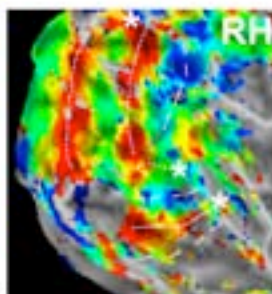
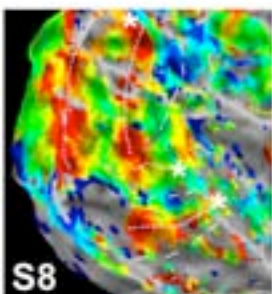
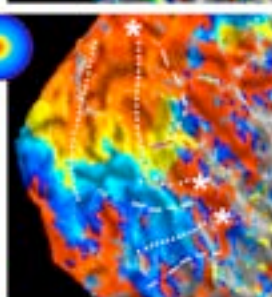
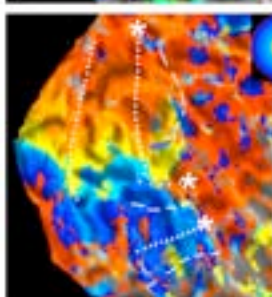
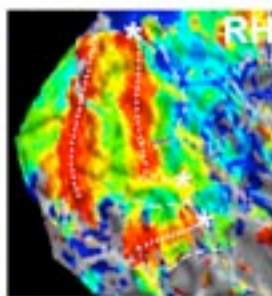
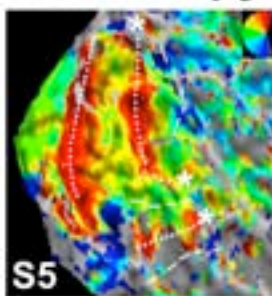
A**B**







Retinotopy Attentionotopy

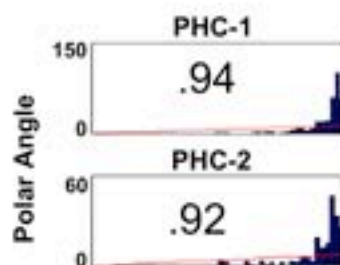
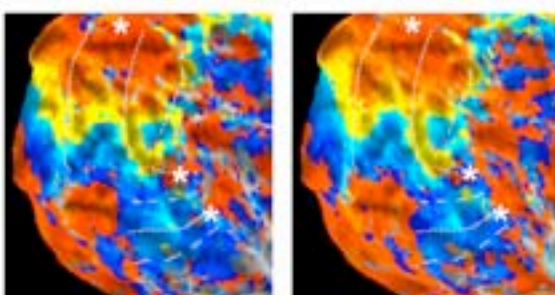
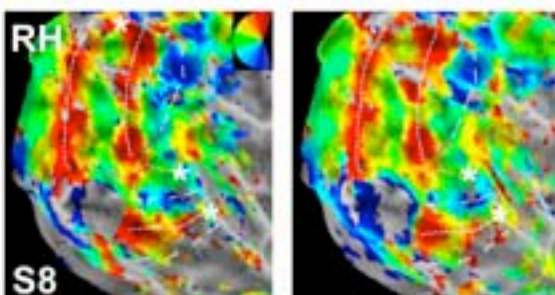
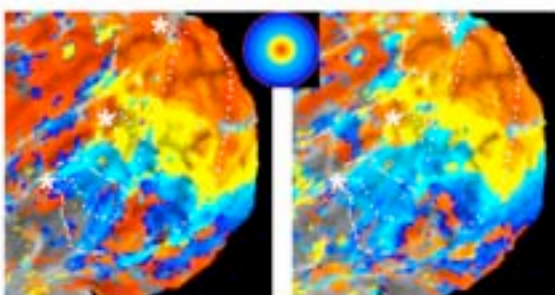
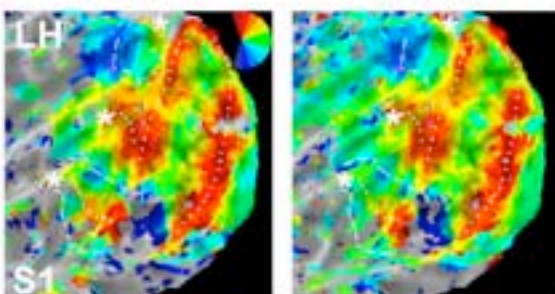


Number of Nodes

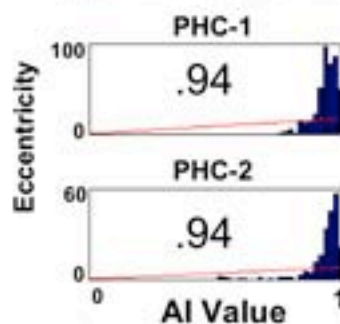
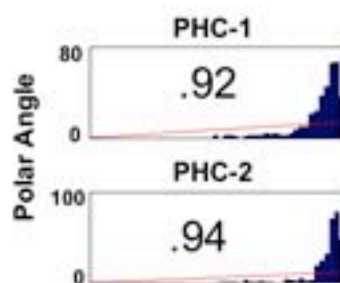
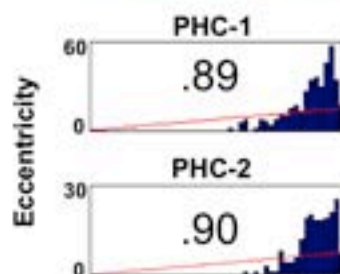
AI Value

Scan 1

Scan 2



Number of Nodes

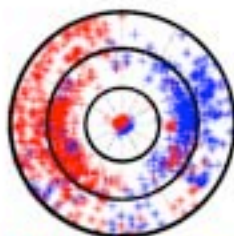
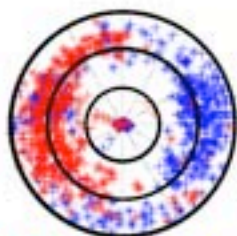


PHC-1

PHC-2

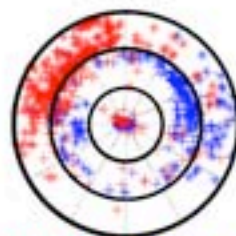
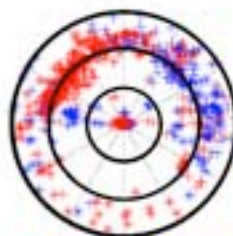
Scan 1

Scan 2



Scan 1

Scan 2



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N=451 N=362 N=484 N=307