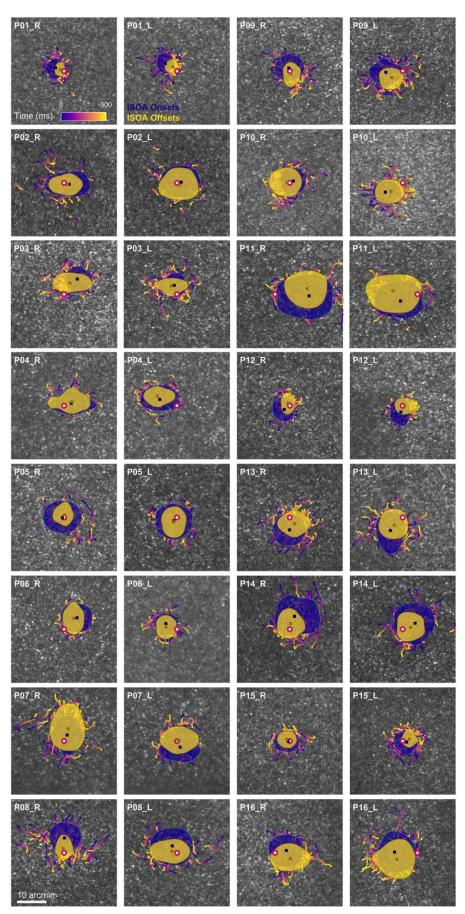
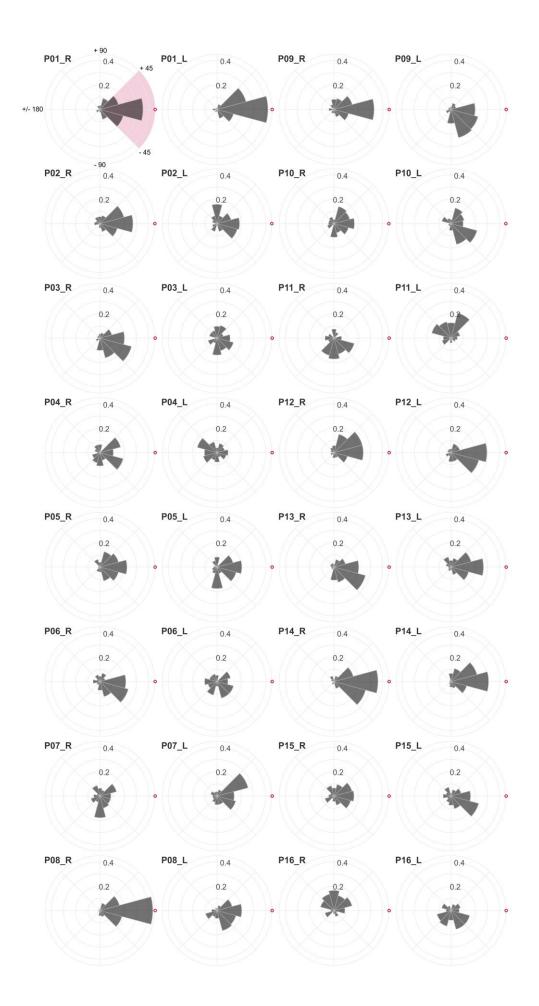
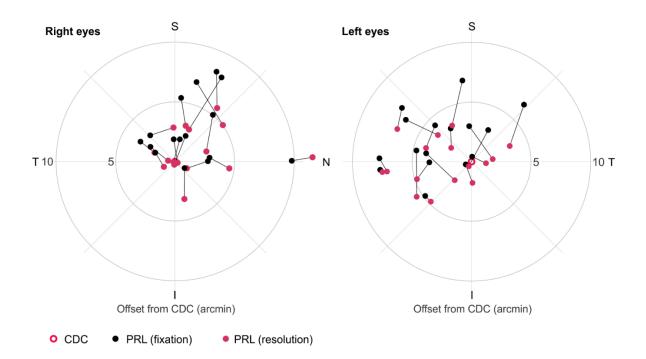
## Supplementary figures



**Fig. S1 | Drift trajectories on foveolar mosaics.** Sorted according to their dominant eyes acuity thresholds (best to worst, P01 to P16) all single trial motion traces of each eye are shown on the corresponding cone mosaic. One-SD isoline areas (ISOA) are shown for all stimulus onset (blue) and offset (yellow) locations. The medians of all onset and offset locations are shown as blue and yellow squares, respectively. The CDC is indicated by a red circle with white fill.



**Fig. S2** | **Individual drift directionality.** Sorted according to their dominant eyes acuity thresholds (best to worst, P01 to P16) eyes drift directionality is shown relative to the CDC. The CDC is indicated by a red circle with white fill. The upper left plot shows the angular labels exemplarily for all eyes. The tuning ratio was computed as the ratio between the relative frequency of intra-participant drift motion towards the CDC ( $\pm$  45 deg), indicated by the pink quarter, and the average of drift motion towards the remaining 3 quadrants.



**Fig. S3 | Different retinal locations used in a fixation or resolution task.** Median PRL locations of all participants' right and left eyes plotted in retinal coordinates relative to the CDC. Retinal locations are plotted in black for the fixation task and in purple for the resolution task. A black line connects retinal locations of the same participant.