

Description of Additional Supplementary Files

Supplementary Video 1 (.mp4): Temporal evolution of populational dynamics under drifting gratings stimuli for 15 days. Disentangled population representation dynamics after the onset of drifting gratings stimuli from an example animal, showing daily trial-averaged (lighter lines) and 15-day-averaged (darker lines) traces, projected onto the first two linear discriminant orientation coding dimensions and the first direction coding axis. Axes labels and color-bar: See Fig. 3b 2.

Supplementary Video 2 (.mp4): Temporal evolution of populational dynamics under drifting gratings stimuli for 15 days. Disentangled population representation dynamics after the onset of drifting gratings stimuli from an example animal, showing daily trial-averaged (lighter lines) and 15-day-averaged (darker lines) traces, projected onto the first two linear discriminant orientation coding dimensions and the first direction coding axis. Axes labels and color-bar: See Supplementary Fig. 7a

Supplementary Video 3 (.mp4): Temporal evolution of populational dynamics under drifting gratings stimuli for 15 days. Disentangled population representation dynamics after the onset of drifting gratings stimuli from an example animal, showing daily trial-averaged (lighter lines) and 15-day-averaged (darker lines) traces, projected onto the first two linear discriminant orientation coding dimensions and the first direction coding axis. Axes labels and color-bar: See Supplementary Fig. 7b

Supplementary Video 4 (.mp4): Temporal evolution of populational dynamics under drifting gratings stimuli for 15 days. Disentangled population representation dynamics after the onset of drifting gratings stimuli from an example animal, showing daily trial-averaged (lighter lines) and 15-day-averaged (darker red lines) traces, projected onto the first two linear discriminant orientation coding dimensions and the first direction coding axis. Axes labels and color-bar: See Supplementary Fig. 7e 5.

Supplementary Video 5 (.mp4): Temporal evolution of populational dynamics under static gratings stimuli for 15 days. Disentangled population representation dynamics after the onset of static gratings stimuli from an example animal, showing daily trial-averaged (lighter lines) and 15-day-averaged (darker lines) traces, projected onto the first two orientation coding dimensions and the first spatial frequency coding axis. Axes labels and color-bar: See Fig. 3c 6.

Supplementary Video 6 (.mp4): Temporal evolution of populational dynamics under static gratings stimuli for 15 days. Disentangled population representation dynamics after the onset of static gratings stimuli from an example animal, showing daily trial-averaged (lighter lines) and 15-day-averaged (darker lines) traces, projected onto the first two orientation coding dimensions and the first spatial frequency coding axis. Axes labels and color-bar: See Supplementary Fig. 7c

Supplementary Video 7 (.mp4): Temporal evolution of populational dynamics under static gratings stimuli for 15 days. Disentangled population representation dynamics after the onset of static gratings stimuli from an example animal, showing daily trial-averaged (lighter lines) and 15- day-averaged (darker red lines) traces, projected onto the first two orientation coding dimensions and the first spatial frequency coding axis. Axes labels and color-bar: See Supplementary Fig. 7f