Framerate = 6.3 Hz

**Visual data**

- Mice are on running wheel and free to run at will

- Visual stimulus on for 4 sec, followed by 8 sec ISI

- 12 oriented gratings are presented in random order in each trial

- 10 trials of grating sequence

- Inhibitory cells are labelled

Data structure:

‘vis’ structure for each animal

‘data’ field: df/f fluorescence traces organized as 10 trials by 12 orientations (one orientation per row)

‘inh’ field: inhibitory cells = 1, excitatory cells = 0

‘trialorder’ field: the order of orientations as they are presented in each trial organized as 10 trials by 12 orientations (e.g. trialorder(1,1) = 7 means orientation 7 was presented first on trial 1, trialorder(5,3) = 1 means orientation 1 was presented third on trial 5)

‘runspeed’ field: the running speed of the animal organized as 10 trials by 12 orientations, matching with the ‘data’ field

Visual orientations go in 30 degree increments, e.g. 1 = 0 deg, 2 = 30 deg, 12 = 330 deg etc.