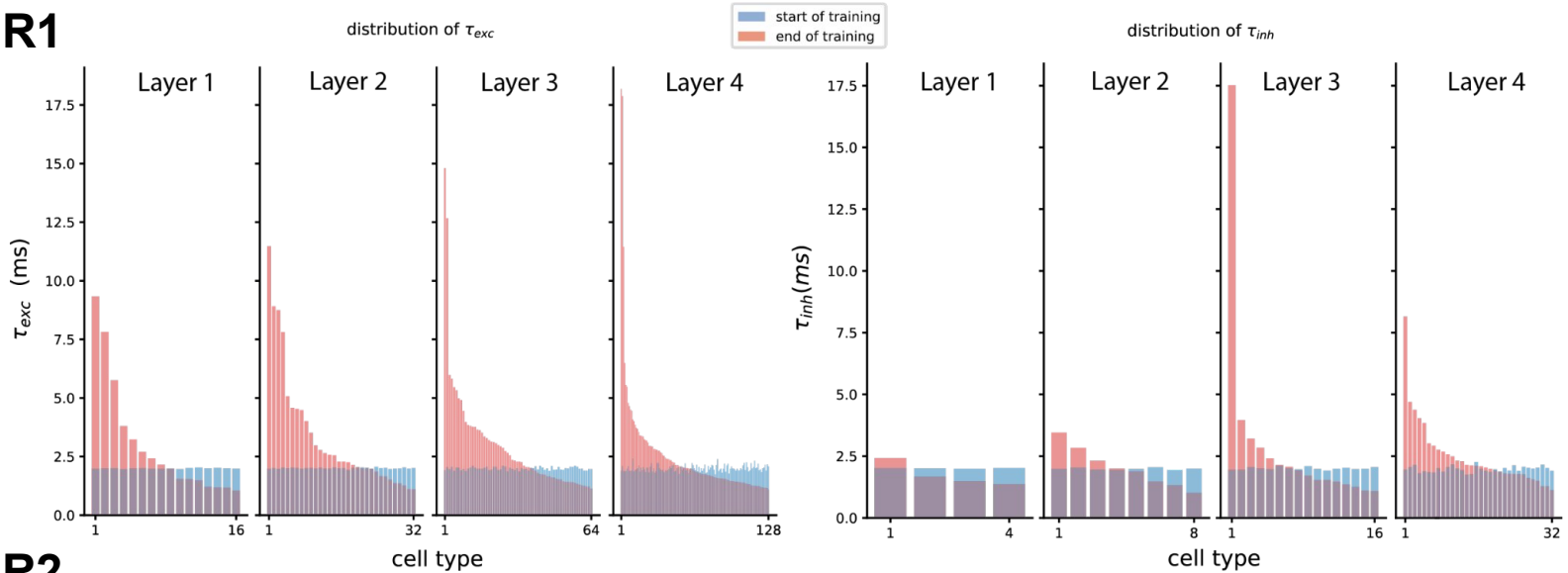
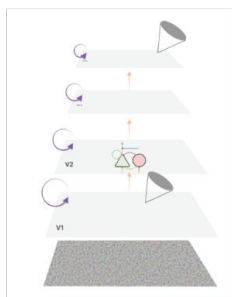




R2

a



Untrained

Trained

Excitatory
Inhibitory

Early Layer

DcNet
(Inhibition Lesioned)

DcNet

Activity

Time

Activity

Time

128 ms

0.44

0.3352

-1.00

-0.2591

0.03358

0.4378

-0.02323

-0.5574

1.000

0.752

-0.596

-0.889

0.00498

0.1819

-0.01399

-0.3521

Time

128 ms

Late Layer

DcNet
(Inhibition Lesioned)

DcNet

Activity

Time

Activity

Time

128 ms

0.752

-0.889

0.00498

0.1819

-0.01399

-0.3521

Time

128 ms

b

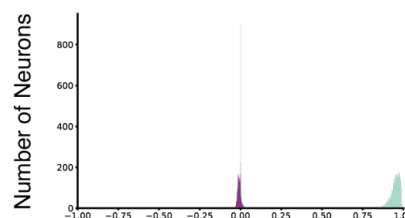
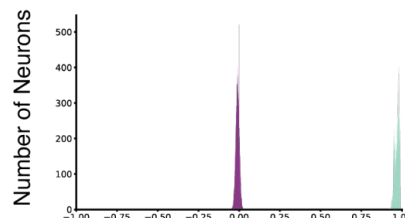
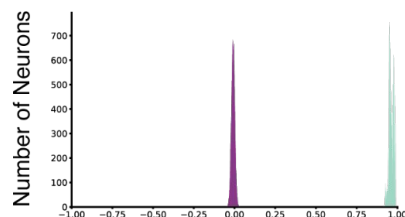
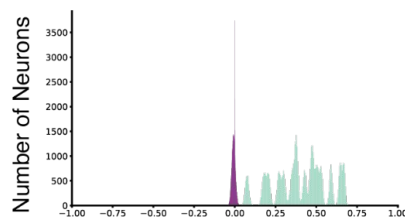
Stability Analysis of Excitatory Cells

Layer 1

Layer 2

Layer 3

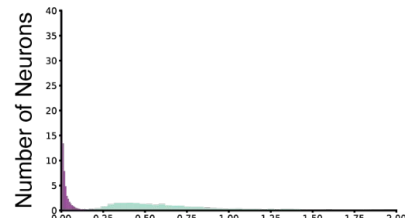
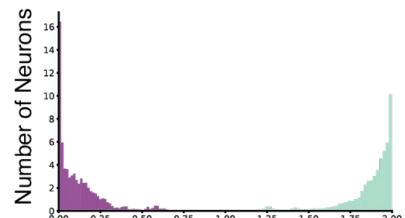
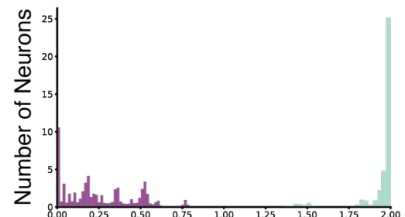
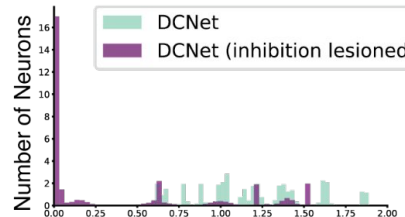
Layer 4



Autocorrelation

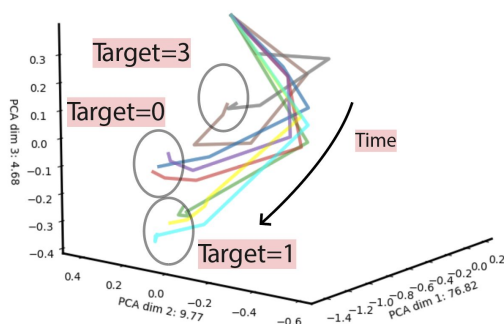
c

Dynamic Range of Excitatory Cells



Dynamic Range

R3



R4

True label	plane	car	bird	cat	deer	dog	frog	horse	ship	truck
plane	884	4	30	8	7	1	5	7	40	14
car	10	921	2	5	1	2	1	1	17	40
bird	31	1	813	32	45	26	32	11	4	5
cat	19	1	50	703	38	113	32	23	9	12
deer	9	2	43	42	830	18	23	22	6	5
dog	9	3	31	129	29	755	13	23	2	6
frog	7	2	38	34	10	14	884	3	4	4
horse	17	2	24	27	29	24	2	872	0	3
ship	31	7	8	10	2	2	3	0	925	12
truck	20	49	5	10	2	1	5	3	13	892

Predicted label

Color of trajectory indicates color of cue used