A

odor intensity

τ

Odor A

s_0

t_A

Odor B

t_B

Time

B

Non-adaptive

MI (bits)

$\log s_0$ (a.u.)

C

Adaptive

MI (bits)

$\log s_0$ (a.u.)

D

background odor identity

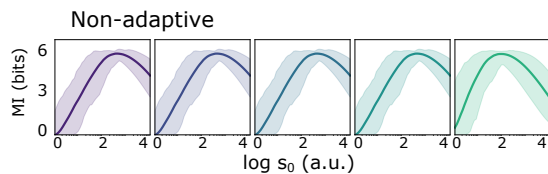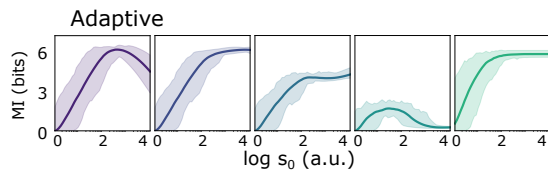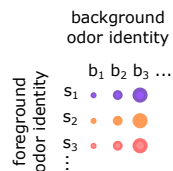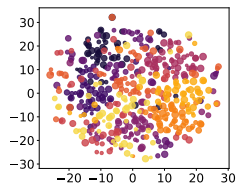b_1 b_2 b_3 ...

foreground odor identity

s_1

s_2

s_3

$A_{a0} \sim \mathcal{N}(0.1, 0.03)$

Non-adaptive

Adaptive