Fig 1 comments: Respose of family of receptor ORN to diverse odors identities and intensities

A: remove K\*, just put like in S-GS paper schematic.

Notate (A) with notations from equation. Remove B.

Remove shapes from C. Keep rest of C and D.

If we have time: try to use Hallem Carlson data, invert for K\_D 🡪 use that for all simulations?

C: label “odorant space” “receptor space”; box the receptors instead of just arrows

D and F: color the frame around for receptor identity; different color heatmap. Remove variances

B: vector showing odor vs. odor 2 vs. odorant space (in vectors)

New Fig 2: ORN adaptation helps maintain odor coding (do backgrounds and stimulus changes)

A. PCA reduction of responses / Clustering response as a function of odor complexity

B. Repeat with background+foreground

C. Giles Laurent plots different concentrations PCA of odor identity (or use clustering)

Current Fig 2 comments: (now Fig 3)

Move A to SI. Consider changing **s** to **O** throughout paper

A: Put a diagram in figure 1 (in notebook) , for CS decoding ; indicate intensity vs. identity

B: consider re-running this case with power-law K\_ds. If huge difference, need to say something about it.

C: y-label “# of odorants in mixture” x-label “odor mixture intensity” (flip C and A). – put a line indicating the K = 7 case. – maybe show two cases for K = 5; k = 10.

D: piece it apart for just identity and just intensity. Current plots put as an example. Or put into SI.

Somehow need to add inhibitory normalization as part of the paper.

Fig 4: plot heatmaps as bckgrnd intensity vs bkgrndc omplexity

Label missing componnets as false positives

Fig. 5 temporal no background / background (all temporal stuff).

Fig. 7: primacy coding: threshold the activity levels; use continuous whiff signals. As whiff onsets, recreuit more receptors – use only these for decoding. Use artificial exponential or sigmoidal stimulus. Try a different scaling law and see what happens in time-dependent whiffs.