

Figure 5 - figure supplement 2

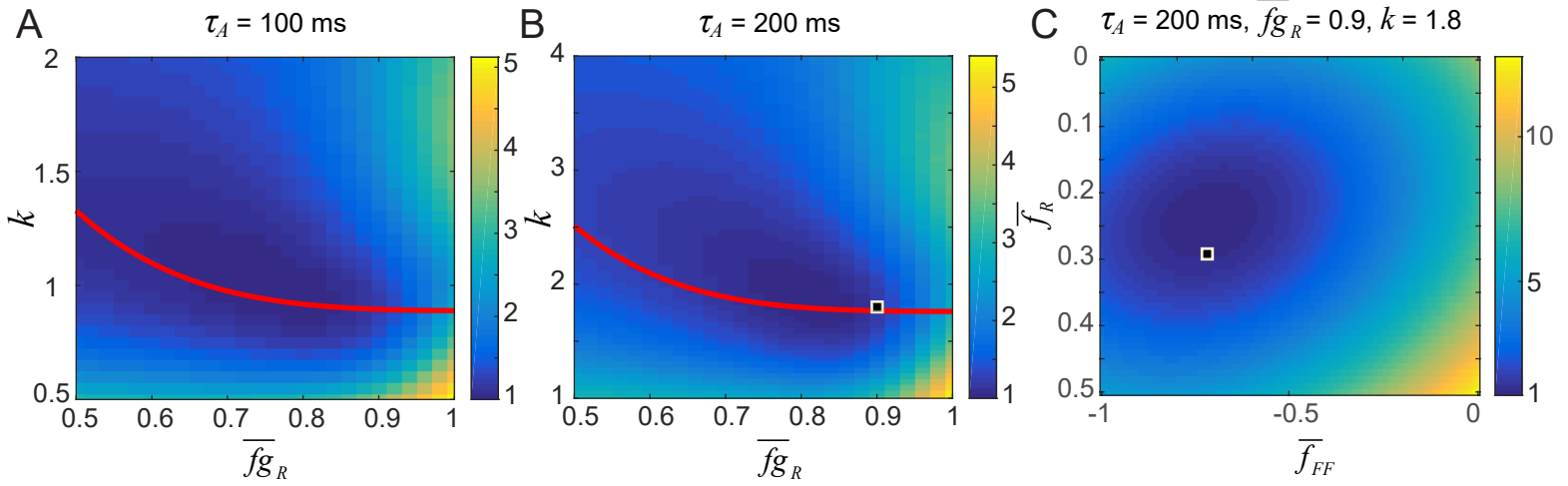


Figure 5 – figure supplement 2. Parameter search for the strengths of potentiation and adaptation (A,B) and average post-synaptic dependence of recurrent and feedforward connections, \bar{f}_R , and \bar{f}_F (C). The color map shows the distance between the data and simulation of the response for familiar stimuli normalized by the lowest distance. The red curve in A and B shows the pairs of \bar{f}_R and k that provide the damped oscillation with its period around 150 ms and provide a good fit to the data. In Fig. 5, we chose $(\bar{f}_R, k) = (0.9, 1.8)$ (the square in B) and $(\bar{f}_R, \bar{f}_F) = (0.3, -0.7)$ (the square in C) for $\tau_A = 200$ ms which gives a good fit to a data in a dimming detection task (Fig. 5B) as well as generating strong resonance behavior in the successive stimulus presentation (Fig. 5D). The distance between the data and simulation is obtained by comparing them between 0 and 300 ms after the activity onset except between 50 ms and 100 ms due to the rapid decrease of activity between 50 and 100 ms which cannot be captured by the simulation.