Update Apr 2013

1. To detect touch and whisking

function whiskingepochstim2(T, dataout, tdelay, vrange, md, whiskamps, th, showspikes, notouch, whisk\_th, touchwhisker, tosave);

whiskingepochstim2(T, dataout, .2, [-75 -20], 0, [0 1 2:3:17] ,5,0, 2 , 5, [], 1);

product: whiskingvmout

1. To compute touch-evoked PSP and spikes

function vmout=computetouch(T, whiskingvmout, th, wid, type, nbins, toplot,range, tosave, plotstim)

>> computetouch(T, whiskingvmout, [], [], 'go', 300, 0, [-50 250] ,1, 1)

1. To study the phase relationship between whisking and neural activity (Vm and spikes)

function whiskcorr=neuralphase(T, w, wid, wth, tosave)

neuralphase(T, whiskingvmout, 1, 6, 1)

then use “phasefinding” to find the averaging traces and preferred phase

phasefinding(whiskcorr)

1. To study how whisking depolarizes the Vm

function whiskmod=whiskingonset(T, w

vo, yrange, whiskrange, tosave, type)

wmod=whiskingonset(T, whiskingvmout, [-66 -57; 0 20],[0 30], 1, 'normal')

or

wmod=whiskingonset(T, whiskingvmout, [-66 -57; 0 20],[0 30], 1, 'stim')

1. Plot Vm traces and behavior

plotvmbehav(T, dataout, b, trialcount, whiskrange, vmrange)

1. Vm and its relationship with trial types

Vmtrialtypes(T, plotrange, trialnums, badtrials, tosave)

1. Stim versus spikes/Vm

function plotvmstim(T, stimfreq, ylims, s1, th,badtrials,time,binsize, scalefac, tosave)

% e.g.% plotvmstim(T, 5, [-70 -20; 0 1000], 0, 1.5, [], [], 0.001, 1, 1)