Contents of data files submitted with manuscript
ED Young et al "Resolution of subcomponents of synaptic release from post-synaptic currents in rat hair-cell/auditory-nerve fiber synapses".

The data submitted consist of the following. These are Matlab data files (.mat).

SW421_dD_dEN_C.mat - a data file containing the analysis of one experiment (called experiment T in the ms).

Fig234data.mat - a data file containing the data plotted in Figure 2D, 3D, and 4.

There is also a program FigsDemo() which is a Matlab .m file. When run, this program plots Figures 1A, 2A, 2D, 3A, 3D, 4A, 4B, 4C, and 5A, drawing the data from the two datafiles. The statistical tests described in the ms are repeated here.

Contents of SW421_dD_dEN_C.mat
This file contains two structures, dD and dEN. Unidentified entries below are either unused parameters or parameters of the program used to construct the lasso fits.

>> dD
dD = struct with fields:

DataID: 'SW421m, start 400 s, 2^25/5 samples'   Data identifier
ut_s: 1.0000e-04   Time resolution of all data, s
filters: [0 0]
origdata: [1×1 struct]
EvThrK: -30   Theshold, pA, used to identify EPSCs when setting baseline to 0
EvSpac_sK: 0.0100
DataDC: [6710887×1 double]   RAW DATA WAVEFORM, with baseline set to 0
EditsZero: []
timK: [201×1 double]   Time axis for the kernel
AvgKernel: [201×1 double]   Kernel,

computed as the average of monophasic EPSCs

    SDKernel: [201×1 double]   SD of the kernel

        nevk: 6096   Number of
events in the average

          N0: 2.3597   Estimate of the
mean-square baseline (mean(var(ZeroWaves))

  ZeroWaves: [96×6096 double]   10 ms samples
of baseline preceding the EPSCs used in the kernel

  ZWaveInds: [2×6096 double]   Index of the start
of each sample (time = index*ut_s)

>> dEN
dEN = struct with fields:

        DataID: 'SW421m, start 400 s, 2^25/5 samples'   Data identifier

          ut_s: 1.0000e-04   Time resolution
of all data, s

           filters: [0 0]

         EvThrK: -30

     EvSpac_sK: 0.0100

          ClThr: -20   Theshold, pA,
used to identify EPSCs after baseline zeroing

  ClusterParams: [5.0000e-04 0.0200 0.0100]

         iClust: [11849×3 double]   Times of EPSCs,
one row/EPSC, contains [time-of-peak …

                                                 time-of-start
time of end] in indices = time/ut_s

         cluspks: [11849×1 double]   Peak value (pA)
of each EPSC

        clusArea: [11849×1 double]   Area of each
EPSC. Multiply by ut_s to obtain charge (pC)

        deletedCl: [4×2 double]

         addedCl: [85 78 101]

    LassoParams: [20 5 0.0300 1 0.0300]

           xsigL: [6710887×1 double]   Deconvolved
waveform (green signals in Figs 1, 5)

         dataOIL: [6710887×1 double]   Fit waveform =
xsigL convolved with kernel

RMSEL: [11849×1 double]   Relative MS
error of each EPSC

RootDCEnergy: [11849×1 double]   DC baseline
offset energy as a fraction of fit energy

nsigpks: [11849×1 double]   Number of
events in each EPSC

yOffL: [11849×1 double]   DC baseline
offset of the fit to each EPSC (should be small)

iEvClustL: {11849×1 cell}   Cell array, one
cell for each EPSC, contains timimg information

                                                     for events in

same format as iClust

PeakAreas: {11849×1 cell}   Area (pA) of
each event

iClRemoved: {5×1 cell}

OverlapElim: {55×1 cell}

Contents of Fig234data.mat, containing the structure Figure234data

>> Figure234data
Figure234data = struct with fields:

ReadMe: 'Data for Figs. 2CD, 3D, 4.'   File identifier
colmns: [1 2 3 4 5 6 7 8 9 10 11 12]   X-axis for Figs
2C, 2D, 3D

rowname: {1×8 cell}   Brief identifiers
for the experiments included

Nevents: [8×12 double]   Data for Figs.
2C, 2D, 3D, in that order. In each, the event count

Mampl: [8×12 double]   varies down the
rows. The columns are the signal plotted on the

Marea: [8×12 double]   y-axis (number
of events, EPSC amplitude, EPSC area).

intNN: [583×2 double]   Data for Fig 4B.
Column 1 is interval to preceding EPSC,

                                                     column 2 is

number of events in this EPSC.

intNNsmooth: 33   (not used)

cmNsig: [10×8 double]   Data for Fig 4A.
Event count varies down the rows, one column
                                                    for each
experiment. Data are the mean number of of events.
        normcm: [1.9756 1.3290 1.3256 1.7276 2.6006 2.4915 1.9579
2.3707]   Normalizing factors, means of the columns
                                                    of cmNsig
        intArea: [2437×2 double]   Data for Fig 4C.
same format as intNN, except data are EPSC area
        intAmpl: [2437×2 double]   As for intArea,
except data are EPSC peak amplitude. No plot,
                                                    but the result is
given in the ms.