%log

%parameters are set as rf = 2, k =8.

weightedBSS\_main

BSSTk

rf = 2

k = 8

filename6 =

example\_data\_rf2\_B\_k8\_kk

filename7 =

example\_data\_rf2\_z0\_k8\_kk

weighted BSSTk

rf = 2

k = 8

filename6 =

example\_data\_wavelet\_rf2\_B\_k8\_kk

filename7 =

example\_data\_wavelet\_rf2\_z0\_k8\_kk

%example\_data.mat is an example data from one subject from our paper, “Weighted Blind Source Separation Can Decompose the Frequency Mismatch Response by Deviant Concatenation: An Meg Study. Front. Neurol. 13:762497. Doi. 10.3389/fneur.2022.762497”

%load example\_data.mat　data0, times, info

%Sampling frequency is 1000 Hz.

load example\_data

%Trigger selection (512, 1024, 2048, 4096 all represent standard stimuli while 8192 refers to deviant stimuli.)

stim=data0(371,:);c=double(stim);e(2:size(stim,2))=c(1:size(stim,2)-1);ee=c-e;

stim\_info\_1=find(ee(:)==512); stim\_info\_2=find(ee(:)==1024);

stim\_info\_3=find(ee(:)==2048); stim\_info\_4=find(ee(:)==4096);

stim\_info\_5=find(ee(:)==8192);

stim\_info\_stan=[stim\_info\_1; stim\_info\_2; stim\_info\_3; stim\_info\_4];

stim\_info\_sort=sort(stim\_info\_stan);　　 size(stim\_info\_sort) =818 1

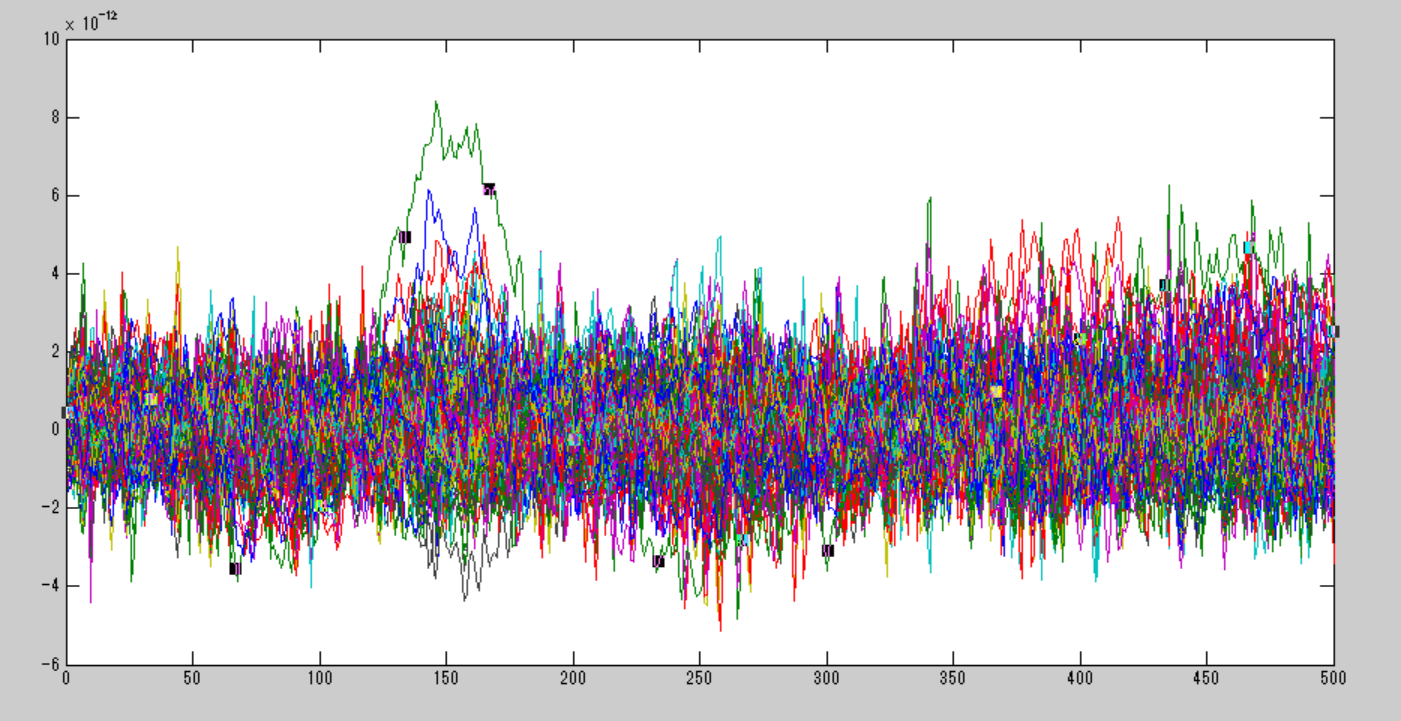
stim\_info\_dev=stim\_info\_5;　　 size(stim\_info\_dev) =207 1

save stim\_info\_rt stim\_info\_sort stim\_info\_dev

%Select gradiometers among 307 channels (EEG, MEG, Stim)

data=data0; data(307:end,:)=[]; data(3:3:306,:)=[]

％ c.f., evoked response of deviant stimuli (gradiometers)



%*BSST/k*

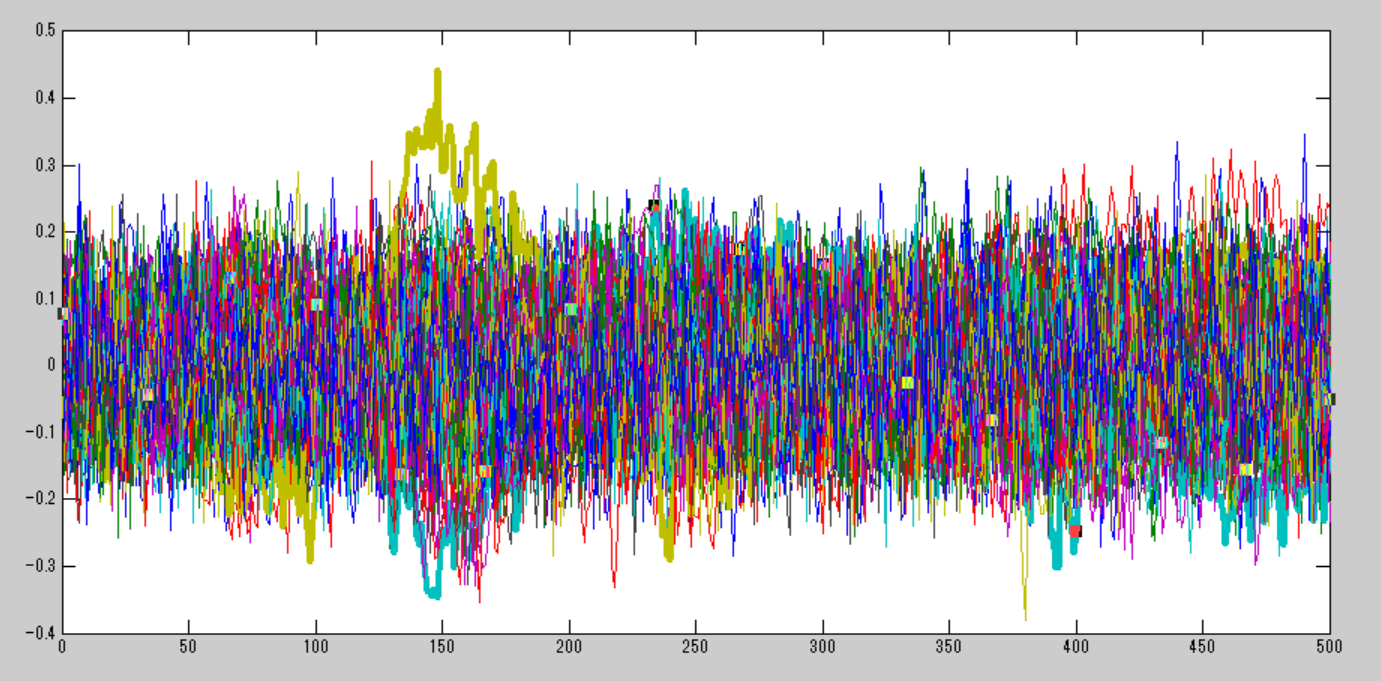
BSS\_func\_kishida('example\_data\_rf2',data,1000)

rf = 2　 k = 8

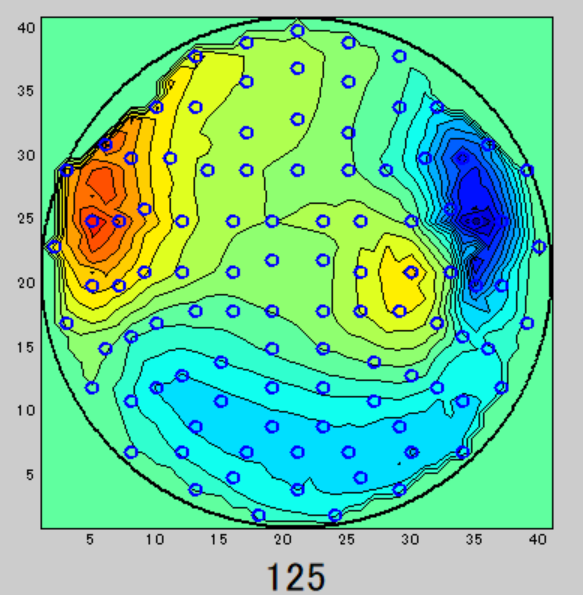
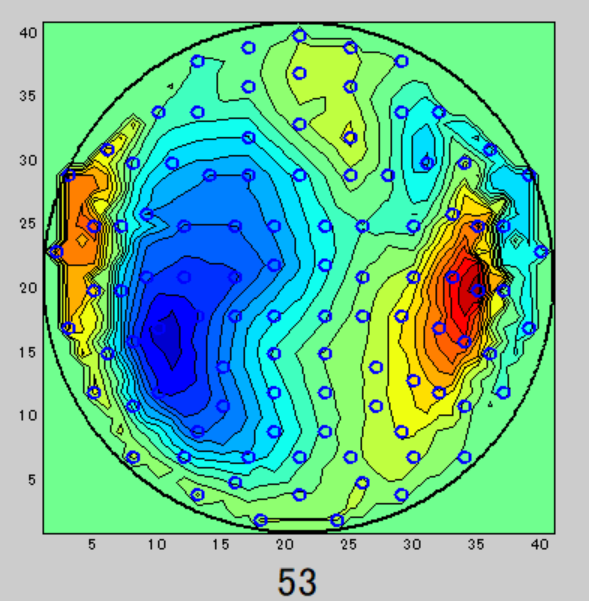
filename6 =example\_data\_rf2\_B\_k8\_kk

filename7 =example\_data\_rf2\_z0\_k8\_kk

%c.f., evoked response of deviant stimuli (signal source; light blue BSS53, yellow BSS125)



% c.f., topographic maps of BSS53 and BSS125



% *Weighted-BSST/k*

% Deviant concatenation and weight assignment at 96-276 ms.

data0=[];for k=1:207 data0=[data0 data(:,stim\_info\_dev(k):stim\_info\_dev(k)+95)\*0.2 data(:,stim\_info\_dev(k)+96:stim\_info\_dev(k)+276) data(:,stim\_info\_dev(k)+277:stim\_info\_dev(k)+499)\*0.2];end

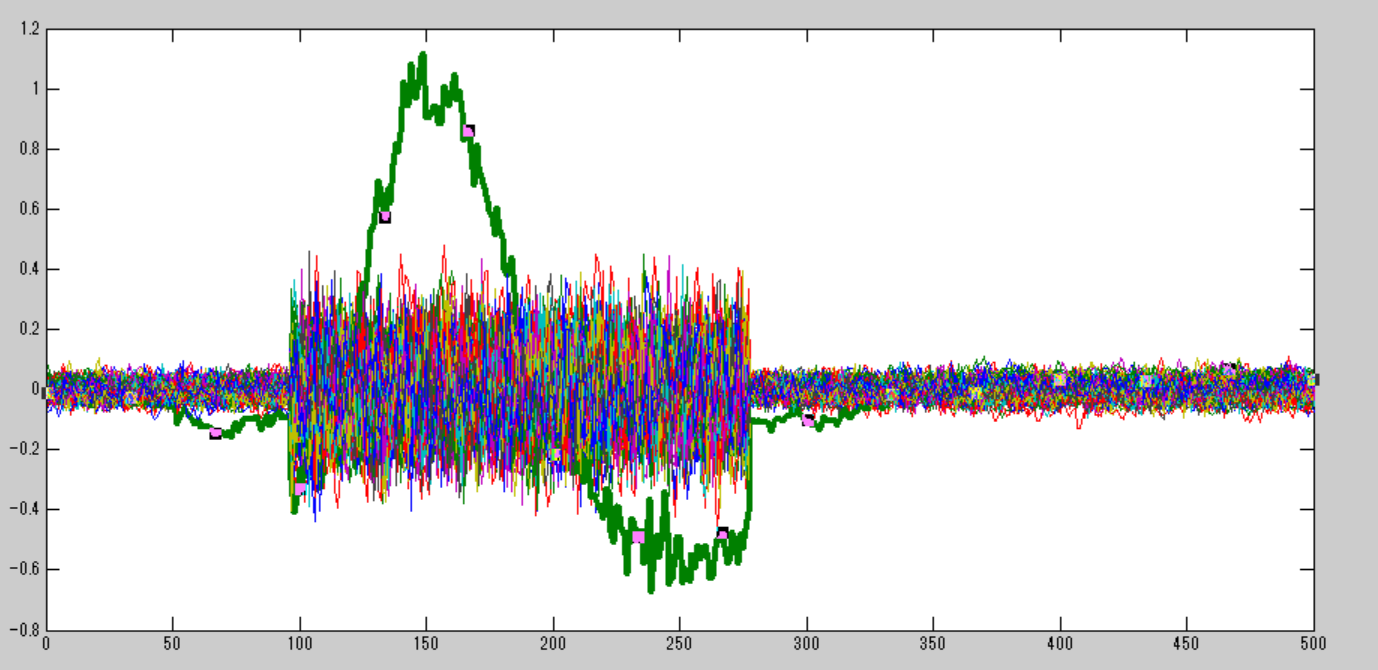
BSS\_func\_kishida('example\_data\_wavelet\_rf2',data0,1000)

rf = 2　 k = 8

filename6 =example\_data\_wavelet\_rf2\_B\_k8\_kk

filename7 =example\_data\_wavelet\_rf2\_z0\_k8\_kk

% c.f., evoked response of deviant stimuli (signal source; green BSS107)



% c.f., topographic map of BSS107

