function BSS\_func\_kk(filename,double\_b,smp)

char\_sign='\_kk';

x=double\_b;

mmean0=menu('Do you take the zero mean average','yes','no')

if(mmean0==1)

[n,t] = size(x);

x=x-(ones(t,1)\*mean(x'))';

end

double\_b=x;

mica=menu('ICA menu','real版','complex版')

mbss=menu('BSS menu','kT型','T/k型','const型','Tang流','T/k型＋kT型','special型','double T/k-type of eplipsy','double T/k-type of SEF','double kT-type of SEF')

%%%a\_make\_M\_hs%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

remove\_b=double\_b;

[bbb, bline]=size(remove\_b);

remove\_b=remove\_b-(ones(bline,1)\*mean(remove\_b'))';

M = cov(remove\_b');

S = inv(sqrtm(M));

xs=S\*remove\_b;

clear remove\_b

average\_xs=(ones(bline,1)\*mean(xs'))';

xs=xs-average\_xs;

clear average\_xs

[n,t] = size(xs);

rf=input(' rf = ');

k=input(' k = ');

for tau=1:k;

wait\_str=strcat('Calculating time delayed correlation-matrices.　　',num2str((tau/k)\*100),'%');

h=waitbar(0,wait\_str);

waitbar(tau/k);

close(h)

if (mbss==1)

Mk(:,:,tau)=corrm(xs',tau\*(smp/rf));

elseif(mbss==2)

Mk(:,:,tau)=corrm(xs',(smp/rf)/tau);

elseif(mbss==3)

Mk(:,:,tau)=corrm(xs',(smp/rf)+tau-1);

elseif(mbss==5)

Mk(:,:,tau)=corrm(xs',(smp/rf)/tau);

elseif(mbss==6)

Mk(:,:,tau)=corrm(xs',tau);

elseif(mbss==7)

Mk(:,:,tau)=corrm(xs',(smp/rf)/tau);

if(rf==10)

Mk(:,:,tau+k)=corrm(xs',(smp/(rf/10))/tau);

elseif(rf==20)

Mk(:,:,tau+k)=corrm(xs',(smp/(rf/10))/tau);

end

elseif(mbss==8)

Mk(:,:,tau)=corrm(xs',(smp/rf)/tau);

elseif(mbss==9)

Mk(:,:,tau)=corrm(xs',tau\*(smp/rf));

end

end

end

% joint diagonalization

bssmm=menu('value of jthresh','0.001','0.0000001','special','0.01')

if(bssmm==1)

C=joint\_diag\_real(M,0.001); % joint\_diag gives back C^-1

elseif(bssmm==2)

C=joint\_diag\_real(M,0.0000001); % joint\_diag gives back C^-1

elseif(bssmm==3)

sess=input('please input sess value : ');

[C D count]=joint\_diag\_real(M,sess);

disp('disp(count)=')

disp(count)

elseif(bssmm==4)

C=joint\_diag\_real(M,0.01); % joint\_diag gives back C^-1

end

% B=C'\*S;

clear xs

% %%%a\_make\_B\_z0\_hs%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

%[n,p] = size(double\_b);

%[brank bline]=size(double\_b);

%double\_b=double\_b-(ones(bline,1)\*mean(double\_b'))';

% B=real(C'\*S); %joint\_diag

B=C'\*S; %joint\_diag\_real

z0=B\*double\_b; %B=inv(A) x=As => s=Bx

A=inv(B);

以下はデータ保存のため

filename6=strcat(filename,'\_B\_k',int2str(k),char\_sign)

eval(['save ',filename6,' A B smp rf k filename'])

filename7=strcat(filename,'\_z0\_k',int2str(k),char\_sign)

eval(['save ',filename7,' z0 smp rf k filename'])