dfittool

%-- 8/4/2011 11:30 AM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

aaronpath

%-- 8/4/2011 11:49 AM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

filelocations.dat

uigetfile

eval 'filelocations.dat' -mat

save avis c:

save 'c:\Users\ahoskins\matlab

save 'c:\Users\ahoskins\matlab\fig-files\imscroll

save 'c:\Users\ahoskins\matlab\fig-files\imscroll\' filelocations.dat

save 'c:\Users\ahoskins\matlab\fig-files\imscroll\filelocations.dat' filelocations

save 'c:\Users\ahoskins\matlab\fig-files\imscroll\filelocations.dat' avis

save 'c:\Users\ahoskins\matlab\fig-files\imscroll\filelocations.dat' avis data imscroll mapping

guiparticlefiner

guiparticlefinder

gui\_particlefinder

gui\_particle\_finder

%-- 8/4/2011 12:00 PM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

imscroll

filelocations

filelocations.dat

[fn fp]=uigetfile

eval filelocations.at -mat

eval filelocations.dat -mat

open filelocations.dat -mat

%-- 8/5/2011 9:07 AM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

folder2=folder;

foldstruc.gfolder=fp;

images2=images;

foldstruc.gfolder2=fp;

imscroll(foldstruc);

images=glimpse\_image(fp,vid,1);

images2=images;

imscroll(foldstruc);

path(path,genpath('c:\Users\ahoskins\matlab\'))

load FileLocations.dat -mat

imscroll(foldstruc);

%-- 8/5/2011 9:17 AM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

load filelocations.dat -mat

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

folder2=folder;

foldstruc.gfolder=fp;

images2=images;

images=glimpse\_image(fp,vid,1);

images2=images;

foldstruc.gfolder2=fp;

imscroll(foldstruc);

gui\_particle\_finder

which struct

which subsindex

imscroll(foldstruc);

%-- 8/5/2011 10:41 AM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

load filelocations.dat -mat

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

folder2=folder;

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

foldstruc.gfolder2=fp;

imscroll(foldstruc);

load filelocations.dat -mat

imscroll(foldstruc);

%-- 8/5/2011 10:44 AM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

matlab path

matlabpath

path

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

folder2=folder;

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

foldstruc.gfolder2=fp;

imscroll(foldstruc);

handles

load filelocations.dat

return

load filelocations.dat -mat

FileLocations

load filelocations.dat

load filelocations.dat -mat

FileLocations.avis

FileLocations.data='c:\Users\ahoskins\matlab\avis\'

FileLocations.data='c:\Users\ahoskins\matlab\data\'

FileLocations.avis='c:\Users\ahoskins\matlab\avis\'

FileLocations.mapping='c:\Users\ahoskins\matlab\mapping\'

FileLocations.imscroll='c:\Users\ahoskins\matlab\imscroll'

FileLocations.imscroll='c:\Users\ahoskins\matlab\imscroll\'

save 'c:\Users\ahoskins\matlab\fig-files\imscroll\filelocations.dat' FileLocations

imscroll(foldstruc);

%-- 8/5/2011 10:58 AM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

FileLocations

load filelocations.dat -mat

FileLocations.avi

FileLocations.avis

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

folder2=folder;

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

foldstruc.gfolder2=fp;

imscroll(foldstruc);

handles

return

%-- 8/5/2011 11:40 AM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

folder2=folder;

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

foldstruc.gfolder2=fp;

imscroll(foldstruc);

%-- 9/25/2011 5:28 PM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

gui\_particle\_finder

%-- 9/26/2011 7:34 AM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

folder2=folder;

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

foldstruc.gfolder2=fp;

imscroll(foldstruc);

load U4doublesnap\_150uW\_hiatp\_drifts.dat -mat

load default.dat

load default.dat -mat

loat U4doublesnap\_150uW\_hiatp\_drifts.dat -mat

load U4doublesnap\_150uW\_hiatp\_drifts.dat -mat

load 092611\_u4ds150hiatp\_drift.dat -mat

dat=draw\_aoifits\_aois(aoifits,'y');

xy\_cell{1}.dat=dat(:,:,1);

xy\_cell{1}.range=[1 1182];

xy\_cell{1}.userange=[1 1182];

CorrectionRange=[1 1182];SequenceLength=1182;

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[8 8]);

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[16 16]);

save c:\users\ahoskins\matlab\fig=files\imscroll\U4\_DS\_150uW\_hiatp\_driftlist.dat driftlist

save 'c:\users\ahoskins\matlab\fig=files\imscroll\U4\_DS\_150uW\_hiatp\_driftlist.dat' driftlist

save c:\Users\ahoskins\matlab\fig-files\imscroll\U4\_DS\_150uW\_hiatp\_driftlist.dat driftlist

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

foldstruc.gfolder2=fp;

imscroll(foldstruc);

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

folder2=folder;

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

foldstruc.gfolder2=fp;

foldstruc.DriftList=driftlist

imscroll(foldstruc);

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

Intervals

cia=Intervals.CumulativeIntervalArray

logik=cia(:,1)==1;

EventLengths=cia(logik,4);

logik2=cia(:,1)==3;

NoEnd=cia(logik2,4);

Intervals

Intervals.CumulativeIntervalArrayDescription

EventLengths=cia(logik,5);

N=histc(EventLengths,[0 3.1 30 60 120 180 240 300 450 600 1200]);

X=[1.55 16.6 45 90 150 210 270 375 525 900];

figure(3);plot(X,([N(1)'/3.1 N(2)'/26.9 N(3)'30 N(4)'/60 N(5)'/60 N(6)'/60 N(7)'/60 N(8)'/150 N(9)'/150 N(10)'/600]),'x');

figure(3);plot(X,([N(1)'/3.1 N(2)'/26.9 N(3)'/30 N(4)'/60 N(5)'/60 N(6)'/60 N(7)'/60 N(8)'/150 N(9)'/150 N(10)'/600]),'x');

help expfalltwo\_mxl

tm=1.5;tx=3600;fcn=fminsearch('expfalltwo\_mxl',[0.3 30 300],[],'EventLengths',tm,tx);

tm=1.5;tx=3600;fcn=fminsearch('expfalltwo\_mxl',[0.3 30 300],[],'EventLengths',tm,tx)

tm=1.5;tx=3600;fcn=fminsearch('expfalltwo\_mxl',[0.3 100 1000],[],'EventLengths',tm,tx)

tm=1.5;tx=3600;fcn=fminsearch('expfalltwo\_mxl',[0.1 100 1000],[],'EventLengths',tm,tx)

tm=1.5;tx=3600;fcn=fminsearch('expfalltwo\_mxl',[0.1 10 100],[],'EventLengths',tm,tx)

tm=1.5;tx=3600;fcn=fminsearch('expfalltwo\_mxl',[0.9 10 100],[],'EventLengths',tm,tx)

tm=1.5;tx=3600;fcn=fminsearch('expfalltwo\_mxl',[1 10 100],[],'EventLengths',tm,tx)

tm=1.5;tx=3600;fcn=fminsearch('expfalltwo\_mxl',[1 1 10],[],'EventLengths',tm,tx)

tm=1.5;tx=3600;fcn=fminsearch('expfalltwo\_mxl',[2 1 10],[],'EventLengths',tm,tx)

tm=1.5;tx=3600;fcn=fminsearch('expfalltwo\_mxl',[1 10 10],[],'EventLengths',tm,tx)

tm=1.5;tx=3600;fcn=fminsearch('expfalltwo\_mxl',[1 10 100],[],'EventLengths',tm,tx)

tm=1.5;tx=3600;fcn=fminsearch('expfalltwo\_mxl',[2 10 100],[],'EventLengths',tm,tx)

tm=1.5;tx=3600;fcn=fminsearch('expfalltwo\_mxl',[2 0.08 100],[],'EventLengths',tm,tx)

EventLengthsB=EventLengths<400

EventLengthsC=EventLengths(EventLengthsB)

N=histc(EventLengthsC,[0 3.1 30 60 120 180 240 300 450 600 1200]);

figure(4);plot(X,([N(1)'/3.1 N(2)'/26.9 N(3)'/30 N(4)'/60 N(5)'/60 N(6)'/60 N(7)'/60 N(8)'/150 N(9)'/150 N(10)'/600]),'x');

tm=1.5;tx=3600;fcn=fminsearch('expfalltwo\_mxl',[0.4 18 100],[],'EventLengthsC',tm,tx)

tm=1.5;tx=3600;fcn=fminsearch('expfalltwo\_mxl',[1 10 100],[],'EventLengthsC',tm,tx)

tm=1.5;tx=3600;fcn=fminsearch('expfalltwo\_mxl',[0.4 5 100],[],'EventLengthsC',tm,tx)

tm=1.5;tx=3600;fcn=fminsearch('expfalltwo\_mxl',[0.4 50 1000],[],'EventLengthsC',tm,tx)

tm=1.5;tx=3600;fcn=fminsearch('expfalltwo\_mxl',[2 5 1000],[],'EventLengthsC',tm,tx)

tm=1.5;tx=3600;fcn=fminsearch('expfallthree\_mxl',[1 2 1 10 1000],[],'EventLengthsC',tm,tx)

tm=1.5;tx=3600;fcn=fminsearch('expfallthree\_mxl',[1 2 6 100 1000],[],'EventLengthsC',tm,tx)

tm=1.5;tx=3600;fcn=fminsearch('expfallthree\_mxl',[1 2 6 100 300],[],'EventLengthsC',tm,tx)

tm=1.5;tx=3600;fcn=fminsearch('expfallthree\_mxl',[1 2 6 30 300],[],'EventLengthsC',tm,tx)

tm=1.5;tx=3600;fcn=fminsearch('expfallthree\_mxl',[1 0.5 6 30 300],[],'EventLengthsC',tm,tx)

tm=1.5;tx=3600;fcn=fminsearch('expfallthree\_mxl',[1 5 6 30 300],[],'EventLengthsC',tm,tx)

EventLengthsB=EventLengths<300

EventLengthsC=EventLengths(EventLengthsB)

tm=1.5;tx=3600;fcn=fminsearch('expfalltwo\_mxl',[0.4 18 100],[],'EventLengthsC',tm,tx)

tm=1.5;tx=3600;fcn=fminsearch('expfalltwo\_mxl',[0.4 8 30],[],'EventLengthsC',tm,tx)

tm=1.5;tx=3600;fcn=fminsearch('expfalltwo\_mxl',[0.4 0.1 0.01],[],'EventLengthsC',tm,tx)

tm=1.5;tx=3600;fcn=fminsearch('expfalltwo\_mxl',[1 1 10],[],'EventLengthsC',tm,tx)

tm=1.5;tx=3600;fcn=fminsearch('expfalltwo\_mxl',[2 1 100],[],'EventLengthsC',tm,tx)

EventLengthsD=EventLengthsC>3.1;EventLengthsE=EventLegthsC(EventhLengthsD);

EventLengthsD=EventLengthsC>3.1;EventLengthsE=EventLegthsC(EventLengthsD);

EventLengthsD=EventLengthsC>3.1;EventLengthsE=EventLengthsC(EventLengthsD);

tm=3;tx=3600;fcn=fminsearch('expfalltwo\_mxl',[0.4 10 50],[],'EventLengthsE',tm,tx)

N=histc(EventLengthsE,[0 3.1 30 60 120 180 240 300 450 600 1200]);

dfittool

tm=3;tx=3600;fcn=fminsearch('expfallone\_mxl',0.02,[],'EventLengthsE',tm,tx)

tm=3;tx=3600;fcn=fminsearch('expfallone\_mxl',0.12,[],'EventLengths',tm,tx)

tm=3;tx=3600;fcn=fminsearch('expfallone\_mxl',0.009,[],'EventLengths',tm,tx)

tm=3;tx=3600;fcn=fminsearch('expfallone\_mxl',1,[],'EventLengths',tm,tx)

bts=btstrp\_exp1(1000,0.02,'EventLengths',3,3600);

bts=btstrp\_exp1(1000,1,'EventLengths',3,3600);

dfittool

bts=btstrp\_exp1(1000,100,'EventLengths',3,3600);

bts=btstrp\_exp1(1000,100,'EventLengths',tm,tx);

bts=btstrp\_exp1(1000,1,'EventLengths',tm,tx);

bts=btstrp\_exp1(10,1,'EventLengths',tm,tx)

bts=btstrp\_exp1(10,0.01,'EventLengths',tm,tx)

bts=btstrp\_exp1(10,0.001,'EventLengths',tm,tx)

bts=btstrp\_exp1b(10,0.001,'EventLengths',tm,tx)

bts=btstrp\_exp1b(10,0.1,'EventLengths',tm,tx)

probability\_steps

bts=btstrp\_exp1(10,100,'EventLengths',tm,tx);

bts=btstrp\_exp1(10,100,EventLengths,tm,tx);

bts=btstrp\_exp1(1000,100,EventLengths,tm,tx);

tm=1.5;tx=3600;fcn=fminsearch('expfalltwo\_mxl',[0.3 30 300],[],EventLengths,tm,tx);

tm=1.5;tx=3600;fcn=fminsearch('expfalltwo\_mxl',[0.3 30 300],[],EventLengths,tm,tx)

tm=1.5;tx=3600;fcn=fminsearch('expfalltwo\_mxl',[0.6 30 300],[],EventLengths,tm,tx)

tm=1.5;tx=3600;fcn=fminsearch('expfalltwo\_mxl',[0.6 30 600],[],EventLengths,tm,tx)

bts=btstrp\_exp1(10,0.001,'EventLengths',tm,tx)

bts=btstrp\_exp1b(10,0.1,'EventLengths',tm,tx)

bts=btstrp\_exp2(1000,[0.6 30 300], EventLengths,tm,tx);

dfittool;

btsa=bts(:,1);

btsb=bts(:,2);

btsc=bts(:,3);

dfittool;

thyme=[0:1:1000]

tm=1.5;tx=3600;fcn=fminsearch('expfalltwo\_mxl',[0.6 30 300],[],EventLengths,tm,tx)

a=0.4429;tau1=14.7482;tau2=148.8924;fcn=1/ ( a\*(exp(-tm/tau1)-exp(-tx/tau2)) + (1-a)\*(exp(-tm/tau2)-exp(-tx/tau2)) ) )\*...

( a/tau1 \*exp(-thyme/tau1)+(1-a)/tau2 \*exp(-thyme/tau2) );

fcn=1/ ( a\*(exp(-tm/tau1)-exp(-tx/tau2)) + (1-a)\*(exp(-tm/tau2)-exp(-tx/tau2)) )\*( a/tau1 \*exp(-intervals/tau1)+(1-a)/tau2 \*exp(-intervals/tau2) )

amp=0.4429;

fcn=1/ ( amp\*(exp(-tm/tau1)-exp(-tx/tau2)) + (1-amp)\*(exp(-tm/tau2)-exp(-tx/tau2)) )\*( amp/tau1 \*exp(-intervals/tau1)+(1-amp)/tau2 \*exp(-intervals/tau2) );

tau1=14.7482;tau2=148.8924;

fcn=1/ ( amp\*(exp(-tm/tau1)-exp(-tx/tau2)) + (1-amp)\*(exp(-tm/tau2)-exp(-tx/tau2)) )\*( amp/tau1 \*exp(-intervals/tau1)+(1-amp)/tau2 \*exp(-intervals/tau2) );

fcn=1/ ( amp\*(exp(-tm/tau1)-exp(-tx/tau2)) + (1-amp)\*(exp(-tm/tau2)-exp(-tx/tau2)) )\*( amp/tau1 \*exp(-thyme/tau1)+(1-amp)/tau2 \*exp(-thyme/tau2) );

hold on

plot(thyme,fcn,'m');

amp=0.836

fcn=1/ ( amp\*(exp(-tm/tau1)-exp(-tx/tau2)) + (1-amp)\*(exp(-tm/tau2)-exp(-tx/tau2)) )\*( amp/tau1 \*exp(-thyme/tau1)+(1-amp)/tau2 \*exp(-thyme/tau2) );

plot(thyme,fcn,'m');

N=histc(EventLengths,[0 3.1 30 60 120 180 240 300 450 600 1200]);

figure(3);plot(X,([N(1)'/3.1 N(2)'/26.9 N(3)'/30 N(4)'/60 N(5)'/60 N(6)'/60 N(7)'/60 N(8)'/150 N(9)'/150 N(10)'/600]/336),'x');

hold on

plot(thyme,fcn,'m');

help errorbar

%-- 9/27/2011 10:53 AM --%

gui\_particle\_finder

path(path,genpath('c:\Users\ahoskins\matlab\'))

gui\_particle\_finder

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

folder2=folder;

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

foldstruc.gfolder2=fp;

imscroll(foldstruc);

gui\_particle\_finder

load U4ds\_450uw\_drift2.dat -mat

dat=draw\_aoifits\_aois(aoifits,'y');

xy\_cell{1}.dat=dat(:,:,1);

xy\_cell{1}.range=[1 1182];

imscroll(foldstruc);

xy\_cell{1}.range=[1 1323];

xy\_cell{1}.userange=[1 1323];

CorrectionRange=[1 1323];SequenceLength=1323;

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[16 16]);

aoifits=[];dat=[];

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[16 16]);

load U4ds\_450uw\_drift.dat -mat

dat=draw\_aoifits\_aois(aoifits,'y');

xy\_cell{1}.dat=dat(:,:,1);

xy\_cell{1}.range=[1 1323];

xy\_cell{1}.userange=[1 1323];

CorrectionRange=[1 1323];SequenceLength=1323;

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[16 16]);

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[28 28]);

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[20 20]);

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[24 20]);

save c:\Users\ahoskins\matlab\fig-files\imscroll\U4\_DS\_450uW\_hiatp\_driftlist.dat driftlist

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

folder2=folder;

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

foldstruc.gfolder2=fp;

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

folder2=folder;

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

foldstruc.gfolder2=fp;

imscroll(foldstruc);

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

folder2=folder;

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

foldstruc.gfolder2=fp;

foldstruc.DriftList=driftlist

imscroll(foldstruc);

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

cia=Intervals.CumulativeIntervalArray

logik=cia(:,1)==1;

EventLengths=cia(logik,5);

logik2=cia(:,1)==3;

NoEnd=cia(logik2,4);

tm=1.5;tx=3600;fcn=fminsearch('expfalltwo\_mxl',[0.3 30 300],[],EventLengths,tm,tx);

tm=1.5;tx=3600;fcn=fminsearch('expfalltwo\_mxl',[0.3 30 300],[],EventLengths,tm,tx)

tm=1.5;tx=3600;fcn=fminsearch('expfalltwo\_mxl',[0.6 10 300],[],EventLengths,tm,tx)

bts=btstrp\_exp2(1000,[0.6130 300], EventLengths,tm,tx);

bts=btstrp\_exp2(1000,[0.61 30 300], EventLengths,tm,tx);

btsa=bts(:,1);

btsb=bts(:,2);

btsc=bts(:,3);

dfittool;

tm=1.5;tx=3600;fcn=fminsearch('expfalltwo\_mxl',[0.3 30 300],[],EventLengths,tm,tx);

thyme=(0:1:1000);amp=0.75;tau1=8.1172;tau2=146.48;fcn=1/ ( amp\*(exp(-tm/tau1)-exp(-tx/tau2)) + (1-amp)\*(exp(-tm/tau2)-exp(-tx/tau2)) )\*( amp/tau1 \*exp(-thyme/tau1)+(1-amp)/tau2 \*exp(-thyme/tau2) );

figure(3);plot(thyme,fcn,'m');

hold on

N=histc(EventLengths,[0 3.1 30 60 120 180 300 1200]);

X=[1.55 16.6 45 90 150 240 740];

X=[1.55 16.6 45 90 150 240 750];

eb=[];

errorbar(X,([N(1)'/3.1 N(2)'/26.9 N(3)'/30 N(4)'/60 N(5)'/60 N(6)'/120 N(7)'/900]/211),eb,'x');

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

folder2=folder;

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

foldstruc.gfolder2=fp;

Intervals=[];EventLengths=[];

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

cia=Intervals.CumulativeIntervalArray

logik=cia(:,1)==1;

EventLengths=cia(logik,5);

logik2=cia(:,1)==3;

NoEnd=cia(logik2,5);

help expfalltwo\_all\_events\_mxl

fcn =fminsearch('expfalltwo\_all\_events\_mxl',[0.4 14 100],EventLengths,NoEnd,tm)

tm=1.5;

fcn=fminsearch('expfalltwo\_all\_events\_mxl',[0.4 14 100],EventLengths,NoEnd,tm)

fcn=fminsearch('expfalltwo\_all\_events\_mxl',[0.4 14 100],EventLengths,NoEnd,1.5)

fcn=fminsearch('expfalltwo\_all\_events\_mxl',[0.4 14 100],[],EventLengths,NoEnd,1.5)

fcn=fminsearch('expfalltwo\_all\_events\_mxl',[0.4 14 1000],[],EventLengths,NoEnd,1.5)

fcn=fminsearch('expfalltwo\_all\_events\_mxl',[0.6 14 1000],[],EventLengths,NoEnd,1.5)

fcn=fminsearch('expfalltwo\_all\_events\_mxl',[0.6 0.1 0.0001],[],EventLengths,NoEnd,1.5)

fcn=fminsearch('expfalltwo\_all\_events\_mxl',[0.6 0.01 0.0001],[],EventLengths,NoEnd,1.5)

fcn=fminsearch('expfalltwo\_all\_events\_mxl',[0.1 0.01 0.0001],[],EventLengths,NoEnd,1.5)

fcn=fminsearch('expfalltwo\_all\_events\_mxl',[0.1 0.01 0.00001],[],EventLengths,NoEnd,1.5)

fcn=fminsearch('expfalltwo\_all\_events\_mxl',[0.1 0.01 0.001],[],EventLengths,NoEnd,1.5)

fcn=fminsearch('expfalltwo\_all\_events\_mxl',[0.1 0.1 0.001],[],EventLengths,NoEnd,1.5)

fcn=fminsearch('expfalltwo\_all\_events\_mxl',[0.1 0.1 0.01],[],EventLengths,NoEnd,1.5)

fcn=fminsearch('expfalltwo\_all\_events\_mxl',[0.1 0.1 0.001],[],EventLengths,NoEnd,1.5)

fcn=fminsearch('expfalltwo\_all\_events\_mxl',[1 0.1 0.001],[],EventLengths,NoEnd,1.5)

bts=btstrp\_exp2\_all(10,[1 0.1 0.001],EventLengths,NoEnd,tm)

bts=btstrp\_exp2\_all(1000,[1 0.1 0.001],EventLengths,NoEnd,tm)

dfittool;

btsa=bts(:,1);

btsb=bts(:,2);

btsc=bts(:,3);

dfittool;

N=histc(EventLengths,[0 3.1 30 60 120 180 300 1200]);

X=[1.55 16.6 45 90 150 240 750];

eb=[];

figure(5);errorbar(X,([N(1)'/3.1 N(2)'/26.9 N(3)'/30 N(4)'/60 N(5)'/60 N(6)'/120 N(7)'/900]/151),eb,'x');

amp=0.53;tau1=8;tau2=1429;fcn=1/ ( amp\*(exp(-tm/tau1)-exp(-tx/tau2)) + (1-amp)\*(exp(-tm/tau2)-exp(-tx/tau2)) )\*( amp/tau1 \*exp(-thyme/tau1)+(1-amp)/tau2 \*exp(-thyme/tau2) );

hold on

plot(thyme,fcn,'m');

amp2=0.63;tau12=7.8;tau22=558;fcn2=1/ ( amp2\*(exp(-tm/tau12)-exp(-tx/tau22)) + (1-amp2)\*(exp(-tm/tau22)-exp(-tx/tau22)) )\*( amp2/tau12 \*exp(-thyme/tau12)+(1-amp2)/tau22 \*exp(-thyme/tau22) );

hold on

plot(thyme,fcn2,'c');

fcn3=fminsearch('expfallthree\_mxl',[1 1 10 100 1000],[],EventLengths,tm,tx)

a1=0.56;a2=0.18;a3=0.26;tau13=5.0715;tau23=68.3289;tau33=781.3193;

fcn4=( 1/ ( a1\*(exp(-tm/tau13)-exp(-tx/tau23))+a2\*(exp(-tm/tau23)-exp(-tx/tau23))+(1-a1-a2)\*(exp(-tm/tau33)-exp(-tx/tau33)) ) )\*...

( a1/tau13\*exp(-intervals/tau13)+a2/tau23\*exp(-intervals/tau23)+(1-a1-a2)/tau33\*exp(-intervals/tau33) );

fcn4=( 1/ ( a1\*(exp(-tm/tau13)-exp(-tx/tau23))+a2\*(exp(-tm/tau23)-exp(-tx/tau23))+(1-a1-a2)\*(exp(-tm/tau33)-exp(-tx/tau33)) ) )\*...

( a1/tau13\*exp(-thyme/tau13)+a2/tau23\*exp(-thyme/tau23)+(1-a1-a2)/tau33\*exp(-thyme/tau33) );

hold on; plot(thyme,fcn4,'r');

gui\_particle\_finder

imscroll(foldstruc);

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder2=folder;

images=glimpse\_image(fp,vid,1);

foldstruc.gfolder2=fp;

imscroll(foldstruc);

abs

help abs

fcn6=expfallthree\_all\_events\_mxl([1 1 10 100 1000],EventLengths,NoEnd,tm)

fcn6=expfalthree\_all\_events\_mxl([1 1 10 100 1000],EventLengths,NoEnd,tm)

fcn6=expfalthree\_all\_events\_mxl([1 1 0.2 0.01 0.001],EventLengths,NoEnd,tm)

fcn6=expfalthree\_all\_events\_mxl([1 0.5 0.2 0.01 0.001],EventLengths,NoEnd,tm)

fcn6=expfallthree\_all\_events\_mxl([1 0.5 0.2 0.01 0.001],EventLengths,NoEnd,tm)

fcn6=expfallthree\_all\_events\_mxl([0.5 0.5 0.2 0.01 0.001],EventLengths,NoEnd,tm)

fcn6=expfallthree\_all\_events\_mxl([0.5 0.5 1 10 100],EventLengths,NoEnd,tm)

fcn6=expfallthree\_all\_events\_mxl([0.5 0.5 10 100 1000],EventLengths,NoEnd,tm)

fcn6=expfallthree\_all\_events\_mxl([0.5 0.5 10 0.1 0.1 0.1],EventLengths,NoEnd,tm)

fcn6=expfallthree\_all\_events\_mxl([0.5 0.5 10 0.1 0.01 0.001],EventLengths,NoEnd,tm)

fcn6=expfallthree\_all\_events\_mxl([0.5 0.5 0.1 0.01 0.001],EventLengths,NoEnd,tm)

fcn6=expfallthree\_all\_events\_mxl([0.5 0.5 0.1 0.01 0.001],EventLengths,NoEnd,tm)

fcn6=expfallthree\_all\_events\_mxl([1 1 0.2 0.02 0.002],EventLengths,NoEnd,tm)

fcn6=expfallthree\_all\_events\_mxl([1 0.5 0.2 0.02 0.002],EventLengths,NoEnd,tm)

fcn6=expfallthree\_all\_events\_mxl([1 1.5 0.2 0.02 0.002],EventLengths,NoEnd,tm)

fcn6=fminsearch('expfallthree\_all\_events\_mxl',[1 1.5 0.2 0.02 0.002],EventLengths,NoEnd,1.5)

fcn6=fminsearch('expfallthree\_all\_events\_mxl',[1 1.5 0.2 0.02 0.002],[],EventLengths,NoEnd,1.5)

fcn6=fminsearch('expfallthree\_all\_events\_mxl',[1 1 0.2 0.02 0.002],[],EventLengths,NoEnd,1.5)

fcn6=fminsearch('expfallthree\_all\_events\_mxl',[1 1 0.2 0.02 0.0002],[],EventLengths,NoEnd,1.5)

a1=0.49;a2=0.21;tau14=5.8;tau24=164;tau34=3333;fcn8=( 1/ ( a1\*(exp(-tm/tau14)-exp(-tx/tau24))+a2\*(exp(-tm/tau24)-exp(-tx/tau24))+(1-a1-a2)\*(exp(-tm/tau34)-exp(-tx/tau34)) ) )\*...

( a1/tau14\*exp(-thyme/tau14)+a2/tau24\*exp(-thyme/tau24)+(1-a1-a2)/tau34\*exp(-thyme/tau34) );

hold on

plot(thyme,fcn8,'c');

bts=btstrp\_exp2(1000,[0.61 30 300], EventLengths,tm,tx);

btsa=bts(:,1);

btsb=bts(:,2);

btsc=bts(:,3);

dfittool

bts=btstrp\_exp3(nboot,inarg,intervals,tm,tx)

bts=btstrp\_exp3(10,[1 1.5 0.2 0.02 0.002],EventLengths,tm,tx)

bts=btstrp\_exp3(10,[1 1.5 2 20 2002],EventLengths,tm,tx)

bts=btstrp\_exp3(1000,[1 1.5 2 20 2002],EventLengths,tm,tx);

bts=btstrp\_exp3(1000,[1 1.5 5 68 700],EventLengths,tm,tx);

bts=btstrp\_exp3(10,[0.8 1.2 5 68 700],EventLengths,tm,tx);

bts=btstrp\_exp3(10,[1 1.5 2 20 2002],EventLengths,tm,tx)

bts=btstrp\_exp3(100,[1 1.5 2 20 2002],EventLengths,tm,tx)

btparms

load btparms.dat

MaxFunEval

MaxFunEvals

help MaxFunEvals

bts=btstrp\_exp3(1000,[1 1.5 2 20 2002],EventLengths,tm,tx);

help fminsearch

btsa=bts(:,1);

btsc=bts(:,3);

btsb=bts(:,2);

dfittool

btsd=bts(:,4);

btse=bts(:,5);

bts=btstrp\_exp3\_all(10,[1 1 0.2 0.02 0.002],EventLengths,NoEnd,tm)

bts=btstrp\_exp3\_all(1000,[1 1 0.2 0.02 0.002],EventLengths,NoEnd,tm);

btsa=bts(:,1);

btsb=bts(:,2);

btsc=bts(:,3);

btse=bts(:,5);

btsd=bts(:,4);

dfittooll

dfittool

%-- 9/28/2011 6:14 PM --%

X=[0 1.5 3 4.5 6 7.5 9];Y=[0.13 0.15 0.20 0.29 0.48 0.72 1.26]

figure(3);plot(X,Y,'x')

cfittool

curvefit

cfit

cfittool

cftool

y2=[0.14 0.16 0.21

end

asd

end

key

stop

y2=[0.14 0.16 0.21 0.29 0.48 0.74 1.3];

%-- 9/29/2011 5:00 PM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

folder2=folder;

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

foldstruc.gfolder2=fp;

imscroll(foldstruc);

load u1ds\_loatp\_061911\_150uw.dat -mat

dat=draw\_aoifits\_aois(aoifits,'y');

xy\_cell{1}.dat=dat(:,:,1);

xy\_cell{1}.range=[1 745];

xy\_cell{1}.userange=[1 745];

CorrectionRange=[1 745];SequenceLength=745;

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[8 8]);

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[16 16]);

dat=draw\_aoifits\_aois(aoifits,'y');

xy\_cell{2}.dat=dat(:,:,2);

xy\_cell=[];

xy\_cell{1}.dat=dat(:,:,2);

xy\_cell{1}.range=[1 745];

xy\_cell{1}.userange=[1 745];

CorrectionRange=[1 745];SequenceLength=745;

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[8 8]);

imscroll(foldstruc);

aoifits=[];

load u1ds\_loatp\_061911\_150uw.dat -mat

dat=draw\_aoifits\_aois(aoifits,'y');

5

xy\_cell{1}.dat=dat(:,:,1);

xy\_cell{1}.range=[1 745];

xy\_cell{1}.userange=[1 745];

CorrectionRange=[1 745];SequenceLength=745;

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[8 8]);

imscroll(foldstruc);

load default.dat -mat

dat=draw\_aoifits\_aois(aoifits,'y');

xy\_cell{1}.dat=dat(:,:,1);

xy\_cell{1}.range=[1 745];

xy\_cell{1}.userange=[1 745];

CorrectionRange=[1 745];SequenceLength=745;

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[8 8]);

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[24 16]);

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[20 18]);

save c:\Users\ahoskins\matlab\fig-files\imscroll\U1\_DS\_150uW\_loatp\_driftlist.dat driftlist

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

folder2=folder;

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

foldstruc.gfolder2=fp;

imscroll(foldstruc);

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

folder2=folder;

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

foldstruc.gfolder2=fp;

imscroll(foldstruc);

foldstruc.DriftList=driftlist

imscroll(foldstruc);

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

cia=Intervals.CumulativeIntervalArray

logik=cia(:,1)==1;

EventLengths=cia(logik,5);

logik2=cia(:,1)==3;

NoEnd=cia(logik2,5);

N=histc(EventLengths,[0 3.1 30 60 120 180 300 1200]);

X=[1.55 16.6 45 90 150 240 750];

N=histc(EventLengths,[0 21 30 60 120 180 300 1200 3600]);

X=[10.5 25.5 45 90 150 240 750 2400];

figure(3);plot(X,([N(1)'/21 N(2)'/9 N(3)'/30 N(4)'/60 N(5)'/60 N(6)'/120 N(7)'/900 N(8)'/2400]/535),'x');

eb=[];

figure(4);

errorbar(X,([N(1)'/21 N(2)'/9 N(3)'/30 N(4)'/60 N(5)'/60 N(6)'/120 N(7)'/900 N(8)'/2400]/535),eb,'x');

tm=11.5;tx=3600;fcn1=fminsearch('expfallthree\_mxl',[1 1 10 100 1000],[],EventLengths,tm,tx)

tm=11.5;tx=3600;fcn1=fminsearch('expfallthree\_mxl',[0.4 1 10 100 1000],[],EventLengths,tm,tx)

tm=11.5;tx=3600;fcn1=fminsearch('expfallthree\_mxl',[0.4 1 1 100 1000],[],EventLengths,tm,tx)

tm=11.5;tx=3600;fcn1=fminsearch('expfallthree\_mxl',[0.1 1 1 100 1000],[],EventLengths,tm,tx)

tm=11.5;tx=3600;fcn1=fminsearch('expfallthree\_mxl',[0.1 0.5 1 100 1000],[],EventLengths,tm,tx)

tm=11.5;tx=3600;fcn1=fminsearch('expfallthree\_mxl',[0.01 0.05 1 100 1000],[],EventLengths,tm,tx)

tm=11.5;tx=3600;fcn1=fminsearch('expfallthree\_mxl',[1 2 1 100 1000],[],EventLengths,tm,tx)

tm=11.5;tx=3600;fcn1=fminsearch('expfallthree\_mxl',[0.1 2 1 100 1000],[],EventLengths,tm,tx)

tm=11.5;tx=3600;fcn1=fminsearch('expfallthree\_mxl',[5 2 1 100 1000],[],EventLengths,tm,tx)

tm=11.5;tx=3600;fcn1=fminsearch('expfallthree\_mxl',[5 2 1 10 1000],[],EventLengths,tm,tx)

tm=11.5;tx=3600;fcn1=fminsearch('expfallthree\_mxl',[0.1 1 1 10 1000],[],EventLengths,tm,tx)

tm=11.5;tx=3600;fcn1=fminsearch('expfallthree\_mxl',[0.1 1 1 10 100],[],EventLengths,tm,tx)

tm=11.5;tx=3600;fcn1=fminsearch('expfallthree\_mxl',[0.1 0.2 1 10 1000],[],EventLengths,tm,tx)

tm=11.5;tx=3600;fcn1=fminsearch('expfallthree\_mxl',[0.01 0.2 1 10 1000],[],EventLengths,tm,tx)

tm=11.5;tx=3600;fcn1=fminsearch('expfallthree\_mxl',[0.3 2 1 10 1000],[],EventLengths,tm,tx)

tm=11.5;tx=3600;fcn1=fminsearch('expfallthree\_mxl',[0.2 2 1 10 1000],[],EventLengths,tm,tx)

tm=11.5;tx=3600;fcn1=fminsearch('expfallthree\_mxl',[0.02 2 1 10 1000],[],EventLengths,tm,tx)

tm=11.5;tx=3600;fcn1=fminsearch('expfalltwo\_mxl',[0.3 1 10],[],EventLengths,tm,tx)

tm=11.5;tx=3600;fcn1=fminsearch('expfalltwo\_mxl',[0.03 1 10],[],EventLengths,tm,tx)

tm=11.5;tx=3600;fcn1=fminsearch('expfalltwo\_mxl',[0.03 1 1000],[],EventLengths,tm,tx)

tm=11.5;tx=3600;fcn1=fminsearch('expfalltwo\_mxl',[0.03 0.01 1000],[],EventLengths,tm,tx)

tm=11.5;tx=3600;fcn1=fminsearch('expfalltwo\_mxl',[0.03 0.001 1000],[],EventLengths,tm,tx)

tm=11.5;tx=3600;fcn1=fminsearch('expfalltwo\_mxl',[0.003 0.001 1000],[],EventLengths,tm,tx)

fcn6=fminsearch('expfallthree\_all\_events\_mxl',[1 1.5 0.2 0.02 0.002],EventLengths,NoEnd,11.5);

fcn6=fminsearch('expfallthree\_all\_events\_mxl',[1 1.5 0.2 0.02 0.002],[],EventLengths,NoEnd,11.5);

fcn6=fminsearch('expfallthree\_all\_events\_mxl',[0.4 1.5 0.2 0.02 0.002],[],EventLengths,NoEnd,11.5);

fcn6=fminsearch('expfallthree\_all\_events\_mxl',[0.4 1.5 0.2 0.02 0.002],[],EventLengths,NoEnd,11.5)

fcn6=fminsearch('expfallthree\_all\_events\_mxl',[0.1 1.5 0.2 0.02 0.002],[],EventLengths,NoEnd,11.5)

fcn6=fminsearch('expfallthree\_all\_events\_mxl',[0.01 1.5 0.2 0.02 0.002],[],EventLengths,NoEnd,11.5)

fcn6=fminsearch('expfalltwo\_all\_events\_mxl',[0.01 1.5 10 0.002],[],EventLengths,NoEnd,11.5)

fcn6=fminsearch('expfalltwo\_all\_events\_mxl',[0.01 1.5 1 0.002],[],EventLengths,NoEnd,11.5)

fcn6=fminsearch('expfalltwo\_all\_events\_mxl',[0.01 1.5 0.1 0.002],[],EventLengths,NoEnd,11.5)

fcn6=fminsearch('expfalltwo\_all\_events\_mxl',[0.01 0.1 0.002],[],EventLengths,NoEnd,11.5)

fcn6=fminsearch('expfalltwo\_all\_events\_mxl',[0.1 0.1 0.002],[],EventLengths,NoEnd,11.5)

fcn6=fminsearch('expfalltwo\_all\_events\_mxl',[1 0.1 0.002],[],EventLengths,NoEnd,11.5)

fcn6=fminsearch('expfalltwo\_all\_events\_mxl',[1 50.002],[],EventLengths,NoEnd,11.5)

fcn6=fminsearch('expfalltwo\_all\_events\_mxl',[1 5 0.002],[],EventLengths,NoEnd,11.5)

fcn6=fminsearch('expfalltwo\_all\_events\_mxl',[1 1 0.02],[],EventLengths,NoEnd,11.5)

fcn6=fminsearch('expfalltwo\_all\_events\_mxl',[0.2 1 0.02],[],EventLengths,NoEnd,11.5)

fcn6=fminsearch('expfalltwo\_all\_events\_mxl',[1 1 0.02],[],EventLengths,NoEnd,11.5)

fcn6=fminsearch('expfalltwo\_all\_events\_mxl',[2 1 0.02],[],EventLengths,NoEnd,11.5)

fcn6=fminsearch('expfalltwo\_all\_events\_mxl',[0.01 1 0.02],[],EventLengths,NoEnd,11.5)

fcn6=fminsearch('expfalltwo\_all\_events\_mxl',[0.01 5 0.002],[],EventLengths,NoEnd,11.5)

fcn6=fminsearch('expfalltwo\_all\_events\_mxl',[0.001 5 0.002],[],EventLengths,NoEnd,11.5)

cftool

dfittool

Y=[N(1)'/21 N(2)'/9 N(3)'/30 N(4)'/60 N(5)'/60 N(6)'/120 N(7)'/900 N(8)'/2400]/535)];

Y=[N(1)'/21 N(2)'/9 N(3)'/30 N(4)'/60 N(5)'/60 N(6)'/120 N(7)'/900 N(8)'/2400]/535);

Y=[N(1)'/21 N(2)'/9 N(3)'/30 N(4)'/60 N(5)'/60 N(6)'/120 N(7)'/900 N(8)'/2400]/535;

cftool

fcn6=fminsearch('expfalltwo\_all\_events\_mxl',[0.3 0.1 0.002],[],EventLengths,NoEnd,11.5)

fcn6=fminsearch('expfalltwo\_all\_events\_mxl',[0.3 1 0.002],[],EventLengths,NoEnd,11.5)

fcn6=fminsearch('expfalltwo\_all\_events\_mxl',[0.03 1 0.002],[],EventLengths,NoEnd,11.5)

tm=2.5

fcn6=fminsearch('expfalltwo\_all\_events\_mxl',[0.03 1 0.002],[],EventLengths,NoEnd,2.5)

fcn6=fminsearch('expfalltwo\_all\_events\_mxl',[0.3 1 0.02],[],EventLengths,NoEnd,2.5)

fcn6=fminsearch('expfalltwo\_all\_events\_mxl',[1 1 0.02],[],EventLengths,NoEnd,2.5)

fcn6=fminsearch('expfalltwo\_all\_events\_mxl',[1 0.3 0.02],[],EventLengths,NoEnd,2.5)

fcn6=fminsearch('expfalltwo\_all\_events\_mxl',[1 10 0.02],[],EventLengths,NoEnd,2.5)

fcn1=fminsearch('expfallthree\_all\_events\_mxl',[1 1.5 0.2 0.02 0.002],EventLengths,NoEnd,2.5);

fcn1=fminsearch('expfallthree\_all\_events\_mxl',[1 1.5 0.2 0.02 0.002],[],EventLengths,NoEnd,2.5);

fcn1=fminsearch('expfallthree\_all\_events\_mxl',[1 1.5 0.2 0.02 0.002],[],EventLengths,NoEnd,2.5)

fcn1=fminsearch('expfallthree\_all\_events\_mxl',[1 0.5 0.2 0.02 0.002],[],EventLengths,NoEnd,2.5)

fcn1=fminsearch('expfallthree\_all\_events\_mxl',[1 0.5 2 0.02 0.002],[],EventLengths,NoEnd,2.5)

fcn1=fminsearch('expfallthree\_all\_events\_mxl',[0.3 0.5 0.2 0.02 0.002],[],EventLengths,NoEnd,2.5)

fcn1=fminsearch('expfallthree\_all\_events\_mxl',[0.5 0.5 0.2 0.02 0.002],[],EventLengths,NoEnd,2.5)

a1=0.44;a2=0.0.34;tau14=10.2;tau24=137;tau34=2402;fcn8=( 1/ ( a1\*(exp(-tm/tau14)-exp(-tx/tau24))+a2\*(exp(-tm/tau24)-exp(-tx/tau24))+(1-a1-a2)\*(exp(-tm/tau34)-exp(-tx/tau34)) ) )\*...

( a1/tau14\*exp(-thyme/tau14)+a2/tau24\*exp(-thyme/tau24)+(1-a1-a2)/tau34\*exp(-thyme/tau34) );

a1=0.44;a2=0.34;tau14=10.2;tau24=137;tau34=2402;fcn8=( 1/ ( a1\*(exp(-tm/tau14)-exp(-tx/tau24))+a2\*(exp(-tm/tau24)-exp(-tx/tau24))+(1-a1-a2)\*(exp(-tm/tau34)-exp(-tx/tau34)) ) )\*...

( a1/tau14\*exp(-thyme/tau14)+a2/tau24\*exp(-thyme/tau24)+(1-a1-a2)/tau34\*exp(-thyme/tau34) );

thyme=[0:1:1000]

fcna1=0.44;a2=0.34;tau14=10.2;tau24=137;tau34=2402;fcn8=( 1/ ( a1\*(exp(-tm/tau14)-exp(-tx/tau24))+a2\*(exp(-tm/tau24)-exp(-tx/tau24))+(1-a1-a2)\*(exp(-tm/tau34)-exp(-tx/tau34)) ) )\*...

( a1/tau14\*exp(-thyme/tau14)+a2/tau24\*exp(-thyme/tau24)+(1-a1-a2)/tau34\*exp(-thyme/tau34) );

hold on

plot(thyme,fcna1,'c');

figure(4);

errorbar(X,([N(1)'/21 N(2)'/9 N(3)'/30 N(4)'/60 N(5)'/60 N(6)'/120 N(7)'/900 N(8)'/2400]/535),eb,'x');

hold on

a1=0.44;a2=0.34;tau14=10.2;tau24=137;tau34=2402;fcn8=( 1/ ( a1\*(exp(-tm/tau14)-exp(-tx/tau24))+a2\*(exp(-tm/tau24)-exp(-tx/tau24))+(1-a1-a2)\*(exp(-tm/tau34)-exp(-tx/tau34)) ) )\*...

( a1/tau14\*exp(-thyme/tau14)+a2/tau24\*exp(-thyme/tau24)+(1-a1-a2)/tau34\*exp(-thyme/tau34) );

plot(thyme,fcn8,'c');

thyme=[0:1:5000];

fcn8=( 1/ ( a1\*(exp(-tm/tau14)-exp(-tx/tau24))+a2\*(exp(-tm/tau24)-exp(-tx/tau24))+(1-a1-a2)\*(exp(-tm/tau34)-exp(-tx/tau34)) ) )\*...

( a1/tau14\*exp(-thyme/tau14)+a2/tau24\*exp(-thyme/tau24)+(1-a1-a2)/tau34\*exp(-thyme/tau34) );

plot(thyme,fcn8,'c');

bts=btstrp\_exp3\_all(10,[0.5 0.5 0.2 0.02 0.0022],EventLengths,NoEnd,tm);

bts=btstrp\_exp3\_all(1000,[0.5 0.5 0.2 0.02 0.0022],EventLengths,NoEnd,tm);

btsa=bts(:,1);

btsb=bts(:,2);

btsc=bts(:,3);

btsd=bts(:,4);

btse

btse=bts(:,5);

dfittool

fcn1=fminsearch('expfallthree\_mxl',[0.5 0.5 0.2 0.02 0.002],[],EventLengths,2.5,3600)

fcn1=fminsearch('expfallthree\_mxl',[0.5 0.5 20 200 2000],[],EventLengths,2.5,3600)

bts=btstrp\_exp3(1000,[0.5 0.5 20 200 2000],EventLengths,NoEnd,tm,tx);

bts=btstrp\_exp3(1000,[0.5 0.5 20 200 2000],EventLengths,tm,tx);

btsa=bts(:,1);

btsb=bts(:,2);

btsc=bts(:,3);

btsd=bts(:,4);

btse

btse=bts(:,5);

dfittool

bts=btstrp\_exp3(1000,[0.5 0.5 20 200 2000],EventLengths,NoEnd,tm,tx);

bts=btstrp\_exp3\_all(1000,[0.5 0.5 0.2 0.02 0.0022],EventLengths,NoEnd,tm);

btsa=bts(:,1);

dfittool

fcn1=fminsearch('expfallthree\_all\_events\_mxl',[0.5 0.5 0.2 0.02 0.002],[],EventLengths,NoEnd,2.5)

a1=0.45;a2=0.3;tau14=9.2;tau24=80.6;tau34=682;fcn9=( 1/ ( a1\*(exp(-tm/tau14)-exp(-tx/tau24))+a2\*(exp(-tm/tau24)-exp(-tx/tau24))+(1-a1-a2)\*(exp(-tm/tau34)-exp(-tx/tau34)) ) )\*...

( a1/tau14\*exp(-thyme/tau14)+a2/tau24\*exp(-thyme/tau24)+(1-a1-a2)/tau34\*exp(-thyme/tau34) );

hold on

plot(thyme,fcn9,'c');

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

folder2=folder;

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

imscroll(foldstruc);

load ntcds\_loatp\_drift.dat -mat

dat=draw\_aoifits\_aois(aoifits,'y');

xy\_cell{1}.dat=dat(:,:,1);

xy\_cell{1}.range=[1 181];

xy\_cell{1}.userange=[1 181];

CorrectionRange=[1 181];SequenceLength=181;

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[16 16]);

%-- 10/2/2011 8:07 PM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

load ntcds\_loatp\_drift.dat -mat

dat=draw\_aoifits\_aois(aoifits,'y');

xy\_cell{1}.dat=dat(:,:,1);

xy\_cell{1}.range=[1 181];

xy\_cell{1}.userange=[1 181];

CorrectionRange=[1 181];SequenceLength=181;

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[16 16]);

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

folder2=folder;

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

imscroll(foldstruc);

load default.dat -mat

dat=draw\_aoifits\_aois(aoifits,'y');

xy\_cell{1}.dat=dat(:,:,1);

xy\_cell{1}.range=[1 181];

xy\_cell{1}.userange=[1 181];

CorrectionRange=[1 181];SequenceLength=181;

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[16 16]);

save c:\Users\ahoskins\matlab\fig-files\imscroll\NTC\_DS\_150uW\_loatp\_driftlist.dat driftlist

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

folder2=folder;

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

imscroll(foldstruc);

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

folder2=folder;

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

imscroll(foldstruc);

foldstruc.DriftList=driftlist

imscroll(foldstruc);

%-- 10/3/2011 9:59 AM --%

%-- 10/3/2011 12:28 PM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

[fn fp]=uigetfile;

folder=[fp fn];

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

folder2=folder;

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

load NTC\_DS\_150uW\_loatp\_driflist.dat -mat

load NTC\_DS\_150uW\_loatp\_driflist.dat

load NTC\_DS\_150uW\_loatp\_driftlist.dat -mat

foldstruc.DriftList=driftlist

imscroll(foldstruc);

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

cia=Intervals.CumulativeIntervalArray

EventLengths=cia(logik,5);

logik=cia(:,1)==1;

EventLengths=cia(logik,5);

logik2=cia(:,1)==3;

NoEnd=cia(logik2,5);

N=histc(EventLengths,[0 21 30 60 120 180 300 1200 3600]);

X=[10.5 25.5 45 90 150 240 750 2400];

figure(3);plot(X,([N(1)'/21 N(2)'/9 N(3)'/30 N(4)'/60 N(5)'/60 N(6)'/120 N(7)'/900 N(8)'/2400]/535),'x');

figure(3);plot(X,([N(1)'/21 N(2)'/9 N(3)'/30 N(4)'/60 N(5)'/60 N(6)'/120 N(7)'/900 N(8)'/2400]/234),'x');

fcn1=fminsearch('expfalltwo\_mxl',[0.3 0.1 0.001],[],EventLengths,10,3600)

fcn1=fminsearch('expfalltwo\_mxl',[0.2 0.1 0.001],[],EventLengths,10,3600)

fcn1=fminsearch('expfalltwo\_mxl',[0.2 10 100],[],EventLengths,10,3600)

fcn1=fminsearch('expfalltwo\_mxl',[0.5 10 100],[],EventLengths,10,3600)

eb=[];

figure(4)

errorbar(X,([N(1)'/21 N(2)'/9 N(3)'/30 N(4)'/60 N(5)'/60 N(6)'/120 N(7)'/900 N(8)'/2400]/234),eb,'x');

hold on

thyme=[0:1:5000];

amp2=0.94;tau12=20.16;tau22=218.9971;fcn2=1/ ( amp2\*(exp(-tm/tau12)-exp(-tx/tau22)) + (1-amp2)\*(exp(-tm/tau22)-exp(-tx/tau22)) )\*( amp2/tau12 \*exp(-thyme/tau12)+(1-amp2)/tau22 \*exp(-thyme/tau22) );

plot(thyme,fcn8,'c');

tm=10;tx=3600;

fcn2=1/ ( amp2\*(exp(-tm/tau12)-exp(-tx/tau22)) + (1-amp2)\*(exp(-tm/tau22)-exp(-tx/tau22)) )\*( amp2/tau12 \*exp(-thyme/tau12)+(1-amp2)/tau22 \*exp(-thyme/tau22) );

plot(thyme,fcn8,'c');

plot(thyme,fcn2,'c');

bts=btstrp\_exp3(10,[0.2 10 100],EventLengths,tm,tx)

bts=btstrp\_exp2(10,[0.2 10 100],EventLengths,tm,tx)

bts=btstrp\_exp2(1000,[0.2 10 100],EventLengths,tm,tx);

btsa=bts(:,1);

btsb=bts(:,2);

btsc=bts(:,3);

dfittool

EventLengthsfr=cia(logik,4);

Eventlenghtsb=EventLengthsfr>1

Eventlengthsc(EventLengths,EventLengthsb);

Eventlengthsc(EventLengths,EventLenghtsb);

Eventlengthsc=(EventLengthsfr,EventLenghtsb);

Eventlengthsc=EventLengthsfr(EventLenghtsb);

Eventlengthsc=EventLengthsfr(Eventlengthsb)

Eventlengthsc=EventLengthsfr(Eventlenghtsb)

%-- 10/4/2011 9:12 AM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

gui\_particle\_finder

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

folder2=folder;

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

imscroll(foldstruc);

foldstruc.gfolder2=fp;

imscroll(foldstruc);

path

imscroll(foldstruc);

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

folder2=folder;

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

imscroll(foldstruc);

load 041611\_u5vprp3fsnapfr3\_150uw\_drifts.dat -mat

dat=draw\_aoifits\_aois(aoifits,'y');

xy\_cell{1}.dat=dat(:,:,1);xy\_cell{2}.dat=dat(:,:,2);

xy\_cell{1}.range=[1 1202];xy\_cell{2}.range=[1 1202];

xy\_cell{1}.userange=[1 1202];xy\_cell{2}.userange=[1 1202];

CorrectionRange=[1 1202];SequenceLength=1202;

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[16 16]);

dat

dat=draw\_aoifits\_aois(aoifits,'y');

load default.dat

load default.dat -mat

dat=draw\_aoifits\_aois(aoifits,'y');

xy\_cell{1}.dat=dat(:,:,1);

xy\_cell{1}.range=[1 1202];

xy\_cell{1}.userange=[1 1202];

CorrectionRange=[1 1202];SequenceLength=1202;

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[16 16]);

%-- 10/4/2011 10:27 AM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

load default.dat -mat

[fn fp]=uigetfile;

%-- 10/4/2011 10:28 AM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

folder2=folder;

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

imscroll(foldstruc);

load 041611\_u5vprp3\_150uW\_drift\_U5s.dat -mat

dat=draw\_aoifits\_aois(aoifits,'y');

xy\_cell{1}.dat=dat(:,:,1);

xy\_cell{1}.range=[1 1202];

xy\_cell{1}.userange=[1 1202];

CorrectionRange=[1 1202];SequenceLength=1202;

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[16 16]);

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[22 22]);

save c:\Users\ahoskins\matlab\fig-files\imscroll\041611\_u5vprp3\_150uW\_drift\_U5s.dat driftlist

aoifits=[];driftlist=[];dat=[];

imscroll(foldstruc);

load 041611\_u5vprp3\_150uW\_drift\_U4s.dat -mat

dat=draw\_aoifits\_aois(aoifits,'y');

xy\_cell{1}.dat=dat(:,:,1);

xy\_cell{1}.range=[1 1202];

xy\_cell{1}.userange=[1 1202];

CorrectionRange=[1 1202];SequenceLength=1202;

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[22 22]);

save c:\Users\ahoskins\matlab\fig-files\imscroll\041611\_u5vprp3\_150uW\_drift\_U4s.dat driftlist

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

folder2=folder;

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

imscroll(foldstruc);

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

folder2=folder;

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

foldstruc.DriftList=driftlist

imscroll(foldstruc);

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

cia=Intervals.CumulativeIntervalArray

EventLengths=cia(logik,5);

logik=cia(:,1)==1;

EventLengths=cia(logik,5);

N=histc(EventLengths,[0 21 30 60 120 180 300 1200 3600]);

X=[10.5 25.5 45 90 150 240 750 2400];

figure(3);plot(X,([N(1)'/21 N(2)'/9 N(3)'/30 N(4)'/60 N(5)'/60 N(6)'/120 N(7)'/900 N(8)'/2400]/281),'x');

N=histc(EventLengths,[0 4 10 30 60 120 180 300 1200 3600]);

X=[2 7 20 45 90 150 240 750 2400];

figure(3);plot(X,([N(1)'/4 N(2)'/6 N(3)'/20 N(4)'/30 N(5)'/60 N(6)'/60 N(7)'/120 N(8)'/900 N(9)'/2400]/281),'x');

fcn1=fminsearch('expfalltwo\_mxl',[0.5 10 100],[],EventLengths,1.5,3600)

fcn1=fminsearch('expfalltwo\_mxl',[0.7 30 400],[],EventLengths,1.5,3600)

bts=btstrp\_exp2(1000,[0.7 30 400],EventLengths,1.5,3600);

btsa=bts(:,1);

btsb=bts(:,2);

btsc=bts(:,3);

hold on

thyme=[0:1:5000];

amp2=0.61;tau12=4.639;tau22=371.5706; fcn2=1/ ( amp2\*(exp(-tm/tau12)-exp(-tx/tau22)) + (1-amp2)\*(exp(-tm/tau22)-exp(-tx/tau22)) )\*( amp2/tau12 \*exp(-thyme/tau12)+(1-amp2)/tau22 \*exp(-thyme/tau22) );

thyme=[0:1:5000]; amp2=0.61;tau12=4.639;tau22=371.5706;tm=1.5;tx=3600; fcn2=1/ ( amp2\*(exp(-tm/tau12)-exp(-tx/tau22)) + (1-amp2)\*(exp(-tm/tau22)-exp(-tx/tau22)) )\*( amp2/tau12 \*exp(-thyme/tau12)+(1-amp2)/tau22 \*exp(-thyme/tau22) );

plot(thyme,fcn2,'c');

hold on

eb=[];

errorbar(X,([N(1)'/4 N(2)'/6 N(3)'/20 N(4)'/30 N(5)'/60 N(6)'/60 N(7)'/120 N(8)'/900 N(9)'/2400]/281),eb,'x');

logik2=cia(:,1)==3;

NoEnd=cia(logik2,5);

dfittool

Intervals=[];cia=[];logik=[];logik2=[];EventLengths=[];NoEnd=[];

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

cia=Intervals.CumulativeIntervalArray

logik=cia(:,1)==1;

EventLengths=cia(logik,5);

logik2=cia(:,1)==3;

NoEnd=cia(logik2,5);

N=histc(EventLengths,[0 4 10 30 60 120 180 300 1200 3600]);

X=[2 7 20 45 90 150 240 750 2400];

figure(3);plot(X,([N(1)'/4 N(2)'/6 N(3)'/20 N(4)'/30 N(5)'/60 N(6)'/60 N(7)'/120 N(8)'/900 N(9)'/2400]/281),'x');

fcn1=fminsearch('expfalltwo\_mxl',[0.7 10 100],[],EventLengths,1.5,3600)

fcn1=fminsearch('expfalltwo\_mxl',[0.1 10 100],[],EventLengths,1.5,3600)

bts=btstrp\_exp2(1000,[0.7 10 100],EventLengths,1.5,3600);

dfittool

btsa=bts(:,1);

btsb=bts(:,2);

btsc=bts(:,3);

eb=[];

figure(4);

errorbar(X,([N(1)'/4 N(2)'/6 N(3)'/20 N(4)'/30 N(5)'/60 N(6)'/60 N(7)'/120 N(8)'/900 N(9)'/2400]/270),eb,'x');

amp2=0.78;tau12=9.8619;tau22=147.0457; fcn2=1/ ( amp2\*(exp(-tm/tau12)-exp(-tx/tau22)) + (1-amp2)\*(exp(-tm/tau22)-exp(-tx/tau22)) )\*( amp2/tau12 \*exp(-thyme/tau12)+(1-amp2)/tau22 \*exp(-thyme/tau22) );

hold on

plot(thyme,fcn2,'c');

%-- 10/6/2011 5:26 PM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

folder2=folder;

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

imscroll(foldstruc);

load 041611\_u5vprp3\_150uW\_drift\_U4s.dat -mat

aoifits

aoifits=[];

load 041611\_u5vprp3\_150uW\_drift\_U4s.dat -mat

aoifits=[];

uigetfile

eval(['load ' [fp fn] ' -mat'])

x041611\_u5vprp3\_150uW\_drift\_U4s=driftlist

driftlist=[];

foldstruc.DriftList=driftlist

imscroll(foldstruc);

vid

x=vid.ttb';

%-- 10/9/2011 1:14 PM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

folder2=folder;

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

imscroll(foldstruc);

load u5vprp3\_450uw\_drift.dat -mat

dat=draw\_aoifits\_aois(aoifits,'y');

xy\_cell{1}.dat=dat(:,:,1);

xy\_cell{1}.range=[1 1202];

xy\_cell{1}.userange=[1 1202];

CorrectionRange=[1 1202];SequenceLength=1202;

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[22 22]);

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[24 24]);

save c:\Users\ahoskins\matlab\fig-files\imscroll\041611\_u5vprp3\_450uW\_drift\_U5s.dat driftlist

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

folder2=folder;

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

load u5vprp3\_450uw\_drift.dat -mat

imscroll(foldstruc);

eval(['load ' [fp fn] ' -mat'])

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

folder2=folder;

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

imscroll(foldstruc);

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

folder2=folder;

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

foldstruc.DriftList=driftlist

imscroll(foldstruc);

u5=[];

u5b=u5>0

u5c=u5(u5b);

N=histc(U5c,[0 4 10 30 60 120 180 300 1200 3600]);

X=[2 7 20 45 90 150 240 750 2400];

figure(3);plot(X,([N(1)'/4 N(2)'/6 N(3)'/20 N(4)'/30 N(5)'/60 N(6)'/60 N(7)'/120 N(8)'/900 N(9)'/2400]/67),'x');

N=histc(u5c,[0 4 10 30 60 120 180 300 1200 3600]);

X=[2 7 20 45 90 150 240 750 2400];

figure(3);plot(X,([N(1)'/4 N(2)'/6 N(3)'/20 N(4)'/30 N(5)'/60 N(6)'/60 N(7)'/120 N(8)'/900 N(9)'/2400]/67),'x');

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

cia=Intervals.CumulativeIntervalArray

logik2=cia(:,1)==3;

logik=cia(:,1)==1;

EventLengths=cia(logik,5);

fcn1=fminsearch('expfalltwo\_mxl',[0.1 10 100],[],EventLengths,1.5,3600)

%-- 10/10/2011 10:21 AM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

cia=Intervals.CumulativeIntervalArray

logik=cia(:,1)==1;

logik2=cia(:,1)==3;

EventLengths=cia(logik,5);

NoEnd=cia(logik2,5);

X=[2 7 20 45 90 150 240 750 2400];

figure(3);plot(X,([N(1)'/4 N(2)'/6 N(3)'/20 N(4)'/30 N(5)'/60 N(6)'/60 N(7)'/120 N(8)'/900 N(9)'/2400]/281),'x');

N=histc(EventLengths,[0 4 10 30 60 120 180 300 1200 3600]);

X=[2 7 20 45 90 150 240 750 2400];

figure(3);plot(X,([N(1)'/4 N(2)'/6 N(3)'/20 N(4)'/30 N(5)'/60 N(6)'/60 N(7)'/120 N(8)'/900 N(9)'/2400]/281),'x');

fcn1=fminsearch('expfalltwo\_mxl',[0.7 10 100],[],EventLengths,1.5,3600)

fcn1=fminsearch('expfalltwo\_mxl',[0.1 10 100],[],EventLengths,1.5,3600)

bts=btstrp\_exp2(1000,[0.7 10 100],EventLengths,1.5,3600);

btsa=bts(:,1);

btsb=bts(:,2);

btsc=bts(:,3);

dfittool

eb=[];

figure(4);

errorbar(X,([N(1)'/4 N(2)'/6 N(3)'/20 N(4)'/30 N(5)'/60 N(6)'/60 N(7)'/120 N(8)'/900 N(9)'/2400]/746),eb,'x');

thyme=[0:1:5000]; amp2=0.83;tau12=11.9;tau22=171.0; fcn2=1/ ( amp2\*(exp(-tm/tau12)-exp(-tx/tau22)) + (1-amp2)\*(exp(-tm/tau22)-exp(-tx/tau22)) )\*( amp2/tau12 \*exp(-thyme/tau12)+(1-amp2)/tau22 \*exp(-thyme/tau22) );

thyme=[0:1:5000]; amp2=0.83;tau12=11.9;tau22=171.0; tm=1.5;tx=3600;fcn2=1/ ( amp2\*(exp(-tm/tau12)-exp(-tx/tau22)) + (1-amp2)\*(exp(-tm/tau22)-exp(-tx/tau22)) )\*( amp2/tau12 \*exp(-thyme/tau12)+(1-amp2)/tau22 \*exp(-thyme/tau22) );

hold on

plot(thyme,fcn2,'c');

fcn1=fminsearch('expfallthree\_mxl',[0.5 0.5 20 200 2000],[],EventLengths,1.5,3600)

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

x041611\_u5vprp3\_450uW\_drift\_U5s=driftlist;

driftlist=[];

x041611\_u5vprp3\_450uW\_drift\_U5s=driftlist;

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

folder2=folder;

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

foldstruc.DriftList=driftlist

imscroll(foldstruc);

EventLengths=[];NoEnd=[];Intervals=[];cia=[];logik=[];logik2=[];

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

cia=Intervals.CumulativeIntervalArray;

logik=cia(:,1)==1;

EventLengths=cia(logik,5);

logik2=cia(:,1)==3;

NoEnd=cia(logik2,5);

fcn1=fminsearch('expfalltwo\_mxl',[0.1 10 300],[],EventLengths,1.5,3600)

fcn1=fminsearch('expfalltwo\_mxl',[0.5 100 300],[],EventLengths,1.5,3600)

bts=btstrp\_exp2(1000,[0.5 10 100],EventLengths,1.5,3600);

btsa=bts(:,1);

btsb=bts(:,2);

btsc=bts(:,3);

dfittool;

N=histc(EventLengths,[0 4 10 30 60 120 180 300 1200 3600]);

eb=[];

0.004685321

0.002318525

0.00069181

0.00037215

0.000186075

0.00014221

8.25014E-05

1.64687E-05

2.08489E-06

figure(5);errorbar(X,([N(1)'/4 N(2)'/6 N(3)'/20 N(4)'/30 N(5)'/60 N(6)'/60 N(7)'/120 N(8)'/900 N(9)'/2400]/595),eb,'x');

thyme=[0:1:5000]; amp2=0.58;tau12=4.6;tau22=297.0; tm=1.5;tx=3600;fcn2=1/ ( amp2\*(exp(-tm/tau12)-exp(-tx/tau22)) + (1-amp2)\*(exp(-tm/tau22)-exp(-tx/tau22)) )\*( amp2/tau12 \*exp(-thyme/tau12)+(1-amp2)/tau22 \*exp(-thyme/tau22) );

hold on

plot(thyme,fcn2,'c');

I=imread('pout.tif')

imshow(I)

I=imread(x10112011\_K699\_ASHI\_DHFR\_Fluorescein);

I=imread('x10112011\_K699\_ASHI\_DHFR\_Fluorescein');

I=imread('C:\Users\ahoskins\Desktop\x10112011\_K699\_ASHI\_DHFR\_Fluorescein.tif');

I=imread('C:\Users\ahoskins\Desktop\x10112011\_K699\_ASHI\_DHFR\_Fluorescein.tiff');

I=imread('C:\Users\ahoskins\Desktop\x10112011\_K699\_ASHI\_DHFR\_Fluorescein');

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -tif'])

eval(['load ' [fp fn] ' -tiff'])

eval(['load ' [fp fn] ' -mat'])

eval(['load ' [fp fn] ' -image'])

figure(3)

help imread

I=imread('C:\Users\ahoskins\Desktop\x10112011\_K699\_ASHI\_DHFR\_Fluorescein.tif', ' -tif');

I=imread('C:\Users\ahoskins\Desktop\x10112011\_K699\_ASHI\_DHFR\_Fluorescein.tiff', ' -tif');

I=imread('C:\Users\ahoskins\Desktop\x10112011\_K699\_ASHI\_DHFR\_Fluorescein', ' -tif');

I=imread('C:\Users\ahoskins\Desktop\x10112011\_K699\_ASHI\_DHFR\_Fluorescein ', ' -tif');

I=imread(C:\Users\ahoskins\Desktop\x10112011\_K699\_ASHI\_DHFR\_Fluorescein, ' -tif');

whereis pout.tif

where

where help

help where

pout.tif

%-- 10/12/2011 8:33 AM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

cia=Intervals.CumulativeIntervalArray

logik=cia(:,1)==1;

folder=[fp fn];

folder2=folder;

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

load 041611\_u5vprp3\_450uW\_drift\_U5s.dat -mat

foldstruc.DriftList=driftlist;

imscroll(foldstruc);

x=[];x=vid.ttb';

U4=[];

N=histc(U4,[0 3 6 10 15 20 25 30 40 50 75 100 150 200 300 500 1000]);

N

N=histc(U4,[0 3.01 6 10 15 20 25 30 40 50 75 100 150 200 300 500 1000]);

N

X=[1.5005 4.5 8 12.5 17.5 22.5 27.5 35 45 62.5 87.5 125 175 250 400 750];

figure(3);plot(X,([N(1)'/3.01 N(2)'/2.99 N(3)'/4 N(4)'/5 N(5)'/5 N(6)'/5 N(7)'/5 N(8)'/10 N(9)'/10 N(10)'/25 N(11)'/25 N(12)'/50 N(13)'/50 N(14)'/100 N(15)'/200 N(16)'/500]/244),'x');

%-- 10/13/2011 8:54 AM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

[fn fp]=uigetfile;

U4=[];

fcn=fminsearch('expconvtwo\_mxl',[0.01 0.1],[],U4)

N=histc(U4,[0 3.01 6 10 15 20 25 30 40 50 75 100 150 200 300 500 1000]);

X=[1.5005 4.5 8 12.5 17.5 22.5 27.5 35 45 62.5 87.5 125 175 250 400 750];

figure(3);plot(X,([N(1)'/3.01 N(2)'/2.99 N(3)'/4 N(4)'/5 N(5)'/5 N(6)'/5 N(7)'/5 N(8)'/10 N(9)'/10 N(10)'/25 N(11)'/25 N(12)'/50 N(13)'/50 N(14)'/100 N(15)'/200 N(16)'/500]/244),'x');

hold on

thyme=[0:1:5000];

k1=0.0167;k2=0.2301;fcn2=((k1\*k2)/(k2-k1))\* (((exp(-thyme\*k1))-(exp(-thyme\*k2))));

plot(thyme,fcn2,'c');

fcn=fminsearch('expconvtwo\_mxl',[0.1 1],[],U4)

fcn=fminsearch('expconvtwo\_mxl',[0.001 0.01],[],U4)

dfittool;

cftool

tm=3;tx=3600;

fcn=fminsearch('expconvtwo\_mxl\_b',[0.001 0.01],[],U4)

fcn=fminsearch('expconvtwo\_mxl\_b',[0.001 0.01],[],U4,tm,tx)

fcn=fminsearch('expconvtwo\_mxl\_b',[0.01 0.1],[],U4,tm,tx)

fcn=fminsearch('expconvtwo\_mxl\_b',[0.1 1],[],U4,tm,tx)

fcn=fminsearch('expconvtwo\_mxl\_b',[0.01 10],[],U4,tm,tx)

k1=0.0164;k2=11.0706;a=0.0164; fcn3=( 1/( a\*(exp(-tm\*k1)-exp(-tx\*k1)) + a\*(exp(-tm\*k2)-exp(-tx\*k2)) ) )\*...

((a\*k1)\*((exp(-intervals\*k1))-(a\*k2)\*(exp(-intervals\*k2))));

k1=0.0164;k2=11.0706;a=0.0164; fcn3=( 1/( a\*(exp(-tm\*k1)-exp(-tx\*k1)) + a\*(exp(-tm\*k2)-exp(-tx\*k2)) ) )\*...

((a\*k1)\*((exp(-thyme\*k1))-(a\*k2)\*(exp(-thyme\*k2))));

hold on

plot(thyme,fcn3,'m');

fcn=fminsearch('expconvthree\_mxl',[0.01 10 100],[],U4,tm,tx)

fcn=fminsearch('expconvthree\_mxl',[0.01 10 10],[],U4,tm,tx)

fcn=fminsearch('expconvthree\_mxl',[0.1 1 10],[],U4,tm,tx)

fcn=fminsearch('expconvtwo\_c',[10],[],U4,tm,tx)

fcn=fminsearch('expconvtwo\_c',10,[],U4,tm,tx)

N2=[];

cftool

fcn=fminsearch('expconvtwo\_larry',[0.1 10],[],U4,tm,tx)

fcn=fminsearch('expconvtwo\_mxl\_larry',[0.1 10],[],U4,tm,tx)

k1=0.0164;k2=14.557;a=exp(-thyme\*k1);b=exp(-thyme\*k2);c=exp(-k1\*tm);d=exp(-k1\*tx);e=exp(-k2\*tm);f=exp(-k2\*tx);(fcn4=((k1\*k2)\*(a-b))/((k2\*(c-d))-(k1\*(e-f)));

k1=0.0164;k2=14.557;a=exp(-thyme\*k1);b=exp(-thyme\*k2);c=exp(-k1\*tm);d=exp(-k1\*tx);e=exp(-k2\*tm);f=exp(-k2\*tx);fcn4=((k1\*k2)\*(a-b))/((k2\*(c-d))-(k1\*(e-f)));

plot(thyme,fcn4,'m');

hold on

plot(thyme,fcn4,'m');

fcn=fminsearch('expconvtwo\_mxl\_larry',[0.1 1],[],U4,tm,tx)

fcn=fminsearch('expconvtwo\_mxl\_larry',[0.01 0.1],[],U4,tm,tx)

k1=0.0167;k2=0.2942;a=exp(-thyme\*k1);b=exp(-thyme\*k2);c=exp(-k1\*tm);d=exp(-k1\*tx);e=exp(-k2\*tm);f=exp(-k2\*tx);fcn4=((k1\*k2)\*(a-b))/((k2\*(c-d))-(k1\*(e-f)));

plot(thyme,fcn4,'m');

hold on

fcn=fminsearch('expconvtwo\_mxl\_larry',[0.001 0.01],[],U4,tm,tx)

eb=[];

errorbar(X,([N(1)'/3.01 N(2)'/2.99 N(3)'/4 N(4)'/5 N(5)'/5 N(6)'/5 N(7)'/5 N(8)'/10 N(9)'/10 N(10)'/25 N(11)'/25 N(12)'/50 N(13)'/50 N(14)'/100 N(15)'/200 N(16)'/500]/244),eb,'x');

u5=[];

N=histc(U4,[0 3.01 6 10 15 20 25 30 40 50 75 100 150 200 300 500 1000 3000]);

X=[1.5005 4.5 8 12.5 17.5 22.5 27.5 35 45 62.5 87.5 125 175 250 400 750 2000];

figure(13);plot(X,([N(1)'/3.01 N(2)'/2.99 N(3)'/4 N(4)'/5 N(5)'/5 N(6)'/5 N(7)'/5 N(8)'/10 N(9)'/10 N(10)'/25 N(11)'/25 N(12)'/50 N(13)'/50 N(14)'/100 N(15)'/200 N(16)'/500 N(17)'/2000]/207),'x');

N=histc(u5,[0 3.01 6 10 15 20 25 30 40 50 75 100 150 200 300 500 1000 3000]);

X=[1.5005 4.5 8 12.5 17.5 22.5 27.5 35 45 62.5 87.5 125 175 250 400 750 2000];

figure(13);plot(X,([N(1)'/3.01 N(2)'/2.99 N(3)'/4 N(4)'/5 N(5)'/5 N(6)'/5 N(7)'/5 N(8)'/10 N(9)'/10 N(10)'/25 N(11)'/25 N(12)'/50 N(13)'/50 N(14)'/100 N(15)'/200 N(16)'/500 N(17)'/2000]/207),'x');

figure(14);;plot(X,([N(1)'/3.01 N(2)'/2.99 N(3)'/4 N(4)'/5 N(5)'/5 N(6)'/5 N(7)'/5 N(8)'/10 N(9)'/10 N(10)'/25 N(11)'/25 N(12)'/50 N(13)'/50 N(14)'/100 N(15)'/200 N(16)'/500 N(17)'/2000]/207),'x');

fcn=fminsearch('expconvtwo\_mxl\_larry',[0.001 0.01],[],u5,tm,tx)

fcn=fminsearch('expconvtwo\_mxl\_larry',[0.0001 0.001],[],u5,tm,tx)

fcn=fminsearch('expconvtwo\_mxl\_larry',[0.01 1],[],u5,tm,tx)

N=histc(u5,[0 6 10 15 20 25 30 40 50 75 100 150 200 300 500 1000 3000]);

X=[3 8 12.5 17.5 22.5 27.5 35 45 62.5 87.5 125 175 250 400 750 2000];

figure(13);plot(X,([N(1)'/6 N(2)'/4 N(3)'/5 N(4)'/5 N(5)'/5 N(6)'/5 N(7)'/10 N(8)'/10 N(9)'/25 N(10)'/25 N(11)'/50 N(12)'/50 N(13)'/100 N(14)'/200 N(15)'/500 N(16)'/2000]/207),'x');

fcn1=fminsearch('expfalltwo\_mxl',[0.5 100 300],[],u5,3,3600)

fcn1=fminsearch('expfalltwo\_mxl',[0.5 10 300],[],u5,3,3600)

bts=btstrp\_exp2(1000,[0.5 10 300],u5,3,3600);

thyme=[0:1:5000]; amp2=0.20;tau12=42.42;tau22=538.78; tm=3;tx=3600;fcn5=1/ ( amp2\*(exp(-tm/tau12)-exp(-tx/tau22)) + (1-amp2)\*(exp(-tm/tau22)-exp(-tx/tau22)) )\*( amp2/tau12 \*exp(-thyme/tau12)+(1-amp2)/tau22 \*exp(-thyme/tau22) );

figure(6);plot(thyme,fcn5,'m');

eb2=[];

hold on

errorbar(X,([N(1)'/6 N(2)'/4 N(3)'/5 N(4)'/5 N(5)'/5 N(6)'/5 N(7)'/10 N(8)'/10 N(9)'/25 N(10)'/25 N(11)'/50 N(12)'/50 N(13)'/100 N(14)'/200 N(15)'/500 N(16)'/2000]/207),eb2,'x');

btsa=bts(:,1);

btsb=bts(:,2);

btsc=bts(:,3);

dfittool;

U5t=[];

N=histc(U5t,[0 6 10 15 20 25 30 40 50 75 100 150 200 300 500 1000 3000]);

X=[3 8 12.5 17.5 22.5 27.5 35 45 62.5 87.5 125 175 250 400 750 2000];

figure(23);plot(X,([N(1)'/6 N(2)'/4 N(3)'/5 N(4)'/5 N(5)'/5 N(6)'/5 N(7)'/10 N(8)'/10 N(9)'/25 N(10)'/25 N(11)'/50 N(12)'/50 N(13)'/100 N(14)'/200 N(15)'/500 N(16)'/2000]/207),'x');

hold on

fcn=fminsearch('expconvtwo\_mxl\_larry',[0.01 1],[],U5t,tm,tx)

fcn=fminsearch('expconvtwo\_mxl\_larry',[0.001 0.01],[],U5t,tm,tx)

fcn=fminsearch('expconvtwo\_mxl\_larry',[0.01 0.1],[],U5t,tm,tx)

k1=0.002;k2=0.0648;a=exp(-thyme\*k1);b=exp(-thyme\*k2);c=exp(-k1\*tm);d=exp(-k1\*tx);e=exp(-k2\*tm);f=exp(-k2\*tx);fcn7=((k1\*k2)\*(a-b))/((k2\*(c-d))-(k1\*(e-f)));

plot(thyme,fcn7,'m');

N=histc(U5t,[0 15 20 25 30 40 50 75 100 150 200 300 500 1000 3000]);

X=[7.5 17.5 22.5 27.5 35 45 62.5 87.5 125 175 250 400 750 2000];

N=histc(U5t,[0 15 20 30 40 50 75 100 150 200 300 500 1000 3000]);

X=[7.5 17.5 25 35 45 62.5 87.5 125 175 250 400 750 2000];

eb3=[];

errorbar(X,([N(1)'/15 N(2)'/5 N(3)'/10 N(4)'/10 N(5)'/10 N(6)'/25 N(7)'/25 N(8)'/50 N(9)'/50 N(10)'/100 N(11)'/200 N(12)'/500 N(13)'/2000]/207),eb3,'x');

bts=btstrp\_expconv\_larry(10,[0.001 0.01],U5t,tm,tx)

bts=btstrp\_expconv\_larry(1000,[0.001 0.01],U5t,tm,tx);

btsa=bts(:,1);

btsb=bts(:,2);

dfittool;

bts=btstrp\_expconv\_larry(1000,[0.01 0.1],U4,tm,tx);

btsa=bts(:,1);

btsb=bts(:,2);

dfittool;

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

folder2=folder;

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

folder2=folder;

images2=images;

imscroll(foldstruc);

foldstruc.gfolder=fp;

foldstruc.gfolder2=fp;

imscroll(foldstruc);

asd

sdf

%-- 10/15/2011 1:20 PM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

folder2=folder;

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

folder2=folder;

images2=images;

imscroll(foldstruc);

foldstruc.gfolder2=fp;

imscroll(foldstruc);

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

folder2=folder;

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

folder2=folder;

images2=images;

imscroll(foldstruc);

load u5vu4\_loatp\_drifts.dat -mat

dat=draw\_aoifits\_aois(aoifits,'y');

xy\_cell{1}.dat=dat(:,:,1);xy\_cell{2}.dat=dat(:,:,3);xy\_cell{3}.dat=dat(:,:,4);xy\_cell{4}.dat=dat(:,:,6);xy\_cell{5}.dat=dat(:,:,6);xy\_cell{6}.dat=dat(:,:,7);

xy\_cell{2}.range=[1 1202];xy\_cell{3}.range=[1 1202];xy\_cell{1}.range=[1 1202];xy\_cell{4}.range=[1 1202];xy\_cell{5}.range=[1 1202];xy\_cell{6}.range=[1 1202];

xy\_cell{1}.userange=[1650];xy\_cell{2}.userange=[651 742];xy\_cell{3}.userange=[743 827];xy\_cell{4}.userange=[828 864];xy\_cell{1}.userange=[868 950];xy\_cell{1}.userange=[951 1201];

CorrectionRange=[1 1202];SequenceLength=1202;

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[22 22]);

xy\_cell{1}.userange=[1 650];xy\_cell{2}.userange=[651 742];xy\_cell{3}.userange=[743 827];xy\_cell{4}.userange=[828 864];xy\_cell{1}.userange=[868 950];xy\_cell{1}.userange=[951 1201];

CorrectionRange=[1 1202];SequenceLength=1202;

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[22 22]);

xy\_cell{1}.userange=[1 650];xy\_cell{2}.userange=[651 742];xy\_cell{3}.userange=[743 827];xy\_cell{4}.userange=[828 864];xy\_cell{5}.userange=[868 950];xy\_cell{6}.userange=[951 1201];

CorrectionRange=[1 1202];SequenceLength=1202;

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[22 22]);

help driftlist

help construct\_driftlist

xycell=[];

dat\_cell{1}.dat=dat(:,:,1);dat\_cell{2}.dat=dat(:,:,3);dat\_cell{3}.dat=dat(:,:,4);dat\_cell{4}.dat=dat(:,:,6);dat\_cell{5}.dat=dat(:,:,6);dat\_cell{6}.dat=dat(:,:,7);

datrange\_cell{2}=[1 1202];datrange\_cell{3}=[1 1202];datrange\_cell{1}=[1 1202];datrange\_cell{4}=[1 1202];datrange\_cell{5}=[1 1202];datrange\_cell{6}=[1 1202];

userange\_cell{1}=[1 650];userange\_cell{2}=[651 742];userange\_cell{3}=[743 827];userange\_celll{4}=[828 864];userange\_cell{5}=[868 950];userange\_cell{6}=[951 1201];

xy\_cell{1}.userange=[1 650];xy\_cell{2}.userange=[651 742];xy\_cell{3}.userange=[743 827];xy\_cell{4}.userange=[828 864];xy\_cell{5}.userange=[868 950];xy\_cell{6}.userange=[951 1201];

xy\_cell{1}.dat=dat(:,:,1);xy\_cell{2}.dat=dat(:,:,3);xy\_cell{3}.dat=dat(:,:,4);xy\_cell{4}.dat=dat(:,:,6);xy\_cell{5}.dat=dat(:,:,6);xy\_cell{6}.dat=dat(:,:,7);

xy\_cell{2}.range=[1 1202];xy\_cell{3}.range=[1 1202];xy\_cell{1}.range=[1 1202];xy\_cell{4}.range=[1 1202];xy\_cell{5}.range=[1 1202];xy\_cell{6}.range=[1 1202];

driftlist=construct\_driftpoints(xy\_cell,CorrectionRange,SequenceLength,[22 22]);

dat

aoifits

xy\_cell=[];

load test.dat -mat

dat=draw\_aoifits\_aois(aoifits,'y');

xy\_cell{1}.userange=[1 650];xy\_cell{2}.userange=[651 742];xy\_cell{3}.userange=[743 827];xy\_cell{4}.userange=[828 864];xy\_cell{5}.userange=[868 950];xy\_cell{6}.userange=[951 1201];

xy\_cell{1}.dat=dat(:,:,1);xy\_cell{2}.dat=dat(:,:,3);xy\_cell{3}.dat=dat(:,:,4);xy\_cell{4}.dat=dat(:,:,6);xy\_cell{5}.dat=dat(:,:,6);xy\_cell{6}.dat=dat(:,:,7);

xy\_cell{2}.range=[1 1202];xy\_cell{3}.range=[1 1202];xy\_cell{1}.range=[1 1202];xy\_cell{4}.range=[1 1202];xy\_cell{5}.range=[1 1202];xy\_cell{6}.range=[1 1202];

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[22 22]);

gui\_drift\_correction

%-- 10/17/2011 9:50 AM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

gui\_drift\_correction

help gui\_drift\_correction

gui\_drift\_correction

load test.dat -mat

dat=draw\_aoifits\_aois(aoifits,'y');

xy\_cell{1}.userange=[1 650];xy\_cell{2}.userange=[650 743];xy\_cell{3}.userange=[743 828];xy\_cell{4}.userange=[828 864];xy\_cell{5}.userange=[868 951];xy\_cell{6}.userange=[951 1201];

xy\_cell{1}.dat=dat(:,:,1);xy\_cell{2}.dat=dat(:,:,3);xy\_cell{3}.dat=dat(:,:,4);xy\_cell{4}.dat=dat(:,:,6);xy\_cell{5}.dat=dat(:,:,6);xy\_cell{6}.dat=dat(:,:,7);

xy\_cell{2}.range=[1 1202];xy\_cell{3}.range=[1 1202];xy\_cell{1}.range=[1 1202];xy\_cell{4}.range=[1 1202];xy\_cell{5}.range=[1 1202];xy\_cell{6}.range=[1 1202];

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[22 22]);

CorrectionRange=[1 1202];SequenceLength=1202;

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[22 22]);

dat=draw\_aoifits\_aois\_v1(aoifits,'y');

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[22 22]);

xy\_cell{1}.userange=[1 650];xy\_cell{2}.userange=[651 742];xy\_cell{3}.userange=[743 827];xy\_cell{4}.userange=[828 864];xy\_cell{5}.userange=[868 950];xy\_cell{6}.userange=[951 1201];

xy\_cell{1}.dat=dat(:,:,1);xy\_cell{2}.dat=dat(:,:,3);xy\_cell{3}.dat=dat(:,:,4);xy\_cell{4}.dat=dat(:,:,6);xy\_cell{5}.dat=dat(:,:,6);xy\_cell{6}.dat=dat(:,:,7);

xy\_cell{2}.range=[1 1202];xy\_cell{3}.range=[1 1202];xy\_cell{1}.range=[1 1202];xy\_cell{4}.range=[1 1202];xy\_cell{5}.range=[1 1202];xy\_cell{6}.range=[1 1202];

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[22 22]);

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

imscroll(foldstruc);

load u5vu4\_loatp\_drifts.dat -mat

dat=[];

dat=draw\_aoifits\_aois\_v1(aoifits,'y');

xy\_cell{1}.dat=dat(:,:,1);xy\_cell{2}.dat=dat(:,:,3);xy\_cell{3}.dat=dat(:,:,4);xy\_cell{4}.dat=dat(:,:,6);xy\_cell{5}.dat=dat(:,:,6);xy\_cell{6}.dat=dat(:,:,7);

xy\_cell{2}.range=[1 1202];xy\_cell{3}.range=[1 1202];xy\_cell{1}.range=[1 1202];xy\_cell{4}.range=[1 1202];xy\_cell{5}.range=[1 1202];xy\_cell{6}.range=[1 1202];

xy\_cell{1}.userange=[1 650];xy\_cell{2}.userange=[651 742];xy\_cell{3}.userange=[743 827];xy\_cell{4}.userange=[828 864];xy\_cell{5}.userange=[868 950];xy\_cell{6}.userange=[951 1201];

CorrectionRange=[1 1202];SequenceLength=1202;

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[12 12]);

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[8 8]);

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[8 16]);

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[8 24]);

save c:\Users\ahoskins\matlab\fig-files\imscroll\042711\_u5vprp3\_150uW\_drift\_loatp.dat driftlist

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

imscroll(foldstruc);

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

foldstruc.DriftList=driftlist;

imscroll(foldstruc);

driftlist=[];aoifits=[];dat=[];

[fn fp]=uigetfile;

folder=[fp fn];

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

imscroll(foldstruc);

load u1vprp3\_150uw\_drifts.dat -mat

dat=draw\_aoifits\_aois\_v1(aoifits,'y');

xy\_cell{1}.dat=dat(:,:,1);xy\_cell{2}.dat=dat(:,:,3);

xy\_cell{2}.range=[1 1203];xy\_cell{1}.range=[1 1203];

xy\_cell{1}.userange=[1 565];xy\_cell{2}.userange=[203 1203];

CorrectionRange=[1 1203];SequenceLength=1203;

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[12 12]);

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[8 8]);

xy\_cell{3}.dat=dat(:,:,3);xy\_cell{3}.range=[1 1203];xy\_cell{3}.userange=[951 1203];xy\_cell{2}.userange=[203 824];

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[8 8]);

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[12 12]);

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[10 10]);

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[6 6]);

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[4 4]);

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[5 5]);

save c:\Users\ahoskins\matlab\fig-files\imscroll\042711\_u1vprp3\_150uW\_drift.dat driftlist

[fn fp]=uigetfile;

folder=[fp fn];

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

imscroll(foldstruc);

[fn fp]=uigetfile;

folder=[fp fn];

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

imscroll(foldstruc);

foldstruc.DriftList=driftlist;

imscroll(foldstruc);

dat=draw\_aoifits\_aois\_v1(aoifits,'y');

driftlist=[];aoifits=[];dat=[];

xy\_cell=[];

load u1vprp3\_150uw\_drifts.dat -mat

dat=draw\_aoifits\_aois\_v1(aoifits,'y');

xy\_cell{1}.dat=dat(:,:,1);xy\_cell{2}.dat=dat(:,:,3);

xy\_cell{2}.range=[1 1203];xy\_cell{1}.range=[1 1203];

xy\_cell{1}.userange=[1 565];xy\_cell{2}.userange=[203 1203];

CorrectionRange=[1 1203];SequenceLength=1203;

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[12 12]);

save c:\Users\ahoskins\matlab\fig-files\imscroll\042711\_u1vprp3\_150uW\_drift.dat driftlist

foldstruc.DriftList=driftlist;

imscroll(foldstruc);

xy\_cell=[];dat=[]driftlist=[];aoifits=[];

xy\_cell=[];dat=[];driftlist=[];aoifits=[];

[fn fp]=uigetfile;

folder=[fp fn];

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

imscroll(foldstruc);

gui\_particle\_finder

[fn fp]=uigetfile;

folder=[fp fn];

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

imscroll(foldstruc);

load u1vprp3\_drifts\_450uW.dat -mat

dat=draw\_aoifits\_aois\_v1(aoifits,'y');

xy\_cell{1}.dat=dat(:,:,1);

xy\_cell{1}.range=[1 1222];

xy\_cell{1}.userange=[1 1222];

CorrectionRange=[1 1222];SequenceLength=1222;

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[12 12]);

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[16 16]);

save c:\Users\ahoskins\matlab\fig-files\imscroll\042711\_u1vprp3\_450uW\_drift.dat driftlist

foldstruc.DriftList=driftlist;

imscroll(foldstruc);

[fn fp]=uigetfile;

folder=[fp fn];

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

folder2=folder;

imscroll(foldstruc);

folder2=folder;

images2=images;

foldstruc.gfolder2=fp;

imscroll(foldstruc);

[fn fp]=uigetfile;

folder=[fp fn];

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

folder2=folder;

imscroll(foldstruc);

load 052111\_u1vprp3fr3\_dy649\_150uw\_u1s.dat -mat

dat=draw\_aoifits\_aois\_v1(aoifits,'y');

xy\_cell{1}.dat=dat(:,:,2);

xy\_cell{1}.range=[1 1102];

xy\_cell{1}.userange=[1 1102];

CorrectionRange=[1 1102];SequenceLength=1102;

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[12 12]);

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[16 12]);

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[20 12]);

save c:\Users\ahoskins\matlab\fig-files\imscroll\052111\_u1vprp3\_150uW\_dy647\_drift.dat driftlist

[fn fp]=uigetfile;

folder=[fp fn];

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

folder2=folder;

imscroll(foldstruc);

[fn fp]=uigetfile;

folder=[fp fn];

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

folder2=folder;

imscroll(foldstruc);

foldstruc.gfolder=fp;

foldstruc.DriftList=driftlist;

imscroll(foldstruc);

[fn fp]=uigetfile;

folder=[fp fn];

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

folder2=folder;

imscroll(foldstruc);

dat=[];aoifits=[];driftlist=[];

load 052111\_u1vprp3\_loatp\_drifts.dat -mat

dat=draw\_aoifits\_aois\_v1(aoifits,'y');

xy\_cell{1}.dat=dat(:,:,2);xy\_cell{2}.dat=dat(:,:,4);xy\_cell{3}.dat=dat(:,:,4);

xy\_cell{1}.range=[1 1203];xy\_cell{2}.range=[1 1203];xy\_cell{3}.range=[1 1203];

xy\_cell{1}.userange=[288 1203];xy\_cell{2}.userange=[1 263];xy\_cell{3}.userange=[265 282];

CorrectionRange=[1 1203];SequenceLength=1203;

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[12 12]);

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[18 18]);

save c:\Users\ahoskins\matlab\fig-files\imscroll\052111\_u1vprp3\_150uW\_loatp\_drift.dat driftlist

[fn fp]=uigetfile;

folder=[fp fn];

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

folder2=folder;

imscroll(foldstruc);

[fn fp]=uigetfile;

folder=[fp fn];

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

folder2=folder;

foldstruc.DriftList=driftlist;

imscroll(foldstruc);

[fn fp]=uigetfile;

folder=[fp fn];

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

folder2=folder;

imscroll(foldstruc);

dat=[];aoifits=[];driftlist=[];

[fn fp]=uigetfile;

folder=[fp fn];

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

folder2=folder;

imscroll(foldstruc);

load u1vbrr2\_450uw\_drifts.dat -mat

dat=draw\_aoifits\_aois\_v1(aoifits,'y');

xy\_cell{1}.dat=dat(:,:,2);xy\_cell{2}.dat=dat(:,:,2);

xy\_cell{1}.range=[1 1202];xy\_cell{2}.range=[1 1202];

xy\_cell{1}.userange=[1 1180];xy\_cell{2}.userange=[1194 1202];

CorrectionRange=[1 1202];SequenceLength=1202;

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[12 12]);

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[18 18]);

save c:\Users\ahoskins\matlab\fig-files\imscroll\042711\_u1vbrr2\_450uW\_drift.dat driftlist

foldstruc.DriftList=driftlist;

imscroll(foldstruc);

[fn fp]=uigetfile;

folder=[fp fn];

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

folder2=folder;

imscroll(foldstruc);

[fn fp]=uigetfile;

folder=[fp fn];

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

imscroll(foldstruc);

dat=[];aoifits=[];driftlist=[];

load 052111\_u2vcef1\_150uw\_drift.dat -mat

dat=[];aoifits=[];driftlist=[];

load 052111\_u2vcef1\_150uw\_drift.dat -mat

dat=draw\_aoifits\_aois\_v1(aoifits,'y');

xy\_cell{1}.dat=dat(:,:,2);

xy\_cell{1}.range=[1 1202];

xy\_cell{1}.userange=[1 1202];

CorrectionRange=[1 1202];SequenceLength=1202;

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[12 12]);

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[16 16]);

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[20 16]);

save c:\Users\ahoskins\matlab\fig-files\imscroll\052111\_u2vcef1\_150\_drift.dat driftlist

foldstruc.DriftList=driftlist;

imscroll(foldstruc);

gui\_particle\_finder

driftlist=[];

load 042711\_u5vprp3\_150uW\_drift\_loatp.dat -mat

[fn fp]=uigetfile;

folder=[fp fn];

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

foldstruc.DriftList=driftlist;

imscroll(foldstruc);

ds[fn

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

cia=Intervals.CumulativeIntervalArray

logik=cia(:,1)==1;

EventLengths=cia(logik,5);

logik2=cia(:,1)==3;

NoEnd=cia(logik2,5);

N=histc(EventLengths,[0 4 10 30 60 120 180 300 1200 3600]);

X=[2 7 20 45 90 150 240 750 2400];

figure(3);plot(X,([N(1)'/4 N(2)'/6 N(3)'/20 N(4)'/30 N(5)'/60 N(6)'/60 N(7)'/120 N(8)'/900 N(9)'/2400]/281),'x');

fcn1=fminsearch('expfalltwo\_mxl',[0.5 10 300],[],EventLengths,1.5,3600)

fcn1=fminsearch('expfalltwo\_all\_events\_mxl',[0.5 10 300],[],EventLengths,NoEnd,1.5)

fcn1=fminsearch('expfalltwo\_all\_events\_mxl',[0.5 0.1 0.0001],[],EventLengths,NoEnd,1.5)

fcn1=fminsearch('expfallthree\_all\_events\_mxl',[0.5 0.5 0.2 0.02 0.002],[],EventLengths,NoEnd,1.5)

fcn1=fminsearch('expfallthree\_all\_events\_mxl',[0.5 0.5 0.02 0.002 0.0002],[],EventLengths,NoEnd,1.5)

a1=0.4;a2=0.48;tau14=13.2;tau24=169.5;tau34=2000;thyme=[0:1:5000];tm=1.5;tx=3600;fcn\_threeall=( 1/ ( a1\*(exp(-tm/tau14)-exp(-tx/tau24))+a2\*(exp(-tm/tau24)-exp(-tx/tau24))+(1-a1-a2)\*(exp(-tm/tau34)-exp(-tx/tau34)) ) )\*...

( a1/tau14\*exp(-thyme/tau14)+a2/tau24\*exp(-thyme/tau24)+(1-a1-a2)/tau34\*exp(-thyme/tau34) );

figure(5);plot(thyme,fcn\_threeall,'x');

figure(5);plot(thyme,fcn\_threeall,'m');

figure(3);plot(X,([N(1)'/4 N(2)'/6 N(3)'/20 N(4)'/30 N(5)'/60 N(6)'/60 N(7)'/120 N(8)'/900 N(9)'/2400]/281),'x');

hol on

hold on

amp2=0.64;tau12=33.8;tau22=714;fcn\_twoall=1/ ( amp2\*(exp(-tm/tau12)-exp(-tx/tau22)) + (1-amp2)\*(exp(-tm/tau22)-exp(-tx/tau22)) )\*( amp2/tau12 \*exp(-thyme/tau12)+(1-amp2)/tau22 \*exp(-thyme/tau22) );

plot(thyme,fcn\_twoall,'c');

plot(X,([N(1)'/4 N(2)'/6 N(3)'/20 N(4)'/30 N(5)'/60 N(6)'/60 N(7)'/120 N(8)'/900 N(9)'/2400]/320),'x');

eb=[];

errorbar(X,([N(1)'/4 N(2)'/6 N(3)'/20 N(4)'/30 N(5)'/60 N(6)'/60 N(7)'/120 N(8)'/900 N(9)'/2400]/320),eb,'x');

help residuals

bts=btstrp\_exp3\_all(1000,[0.5 0.5 0.02 0.002 0.00022],EventLengths,NoEnd,tm);

help resid

help IDDATA

btsa=bts(:,1);

btsb=bts(:,2);

btsc=bts(:,3);

btsd=bts(:,4);

btse=bts(:,5);

dfittool;

bts=btstrp\_exp2\_all(1000,[0.5 0.1 0.0001],EventLengths,NoEnd,tm);

btsa=bts(:,1);

btsb=bts(:,2);

btsc=bts(:,3);

dfittool;

logik=[];cia=[];logik2=[];EventLengths=[];NoEnd=[];

[fn fp]=uigetfile;

Intervals=[];

eval(['load ' [fp fn] ' -mat'])

cia=Intervals.CumulativeIntervalArray

logik=cia(:,1)==1;

EventLengths=cia(logik,5);

logik2=cia(:,1)==3;

NoEnd=cia(logik2,5);

X=[2 7 20 45 90 150 240 750 2400];

figure(3);plot(X,([N(1)'/4 N(2)'/6 N(3)'/20 N(4)'/30 N(5)'/60 N(6)'/60 N(7)'/120 N(8)'/900 N(9)'/2400]/281),'x');

fcn1=fminsearch('expfalltwo\_mxl',[0.5 10 300],[],EventLengths,1.5,3600)

fcn1=fminsearch('expfalltwo\_all\_events\_mxl',[0.5 10 300],[],EventLengths,NoEnd,1.5)

fcn1=fminsearch('expfalltwo\_all\_events\_mxl',[0.5 0.1 0.0001],[],EventLengths,NoEnd,1.5)

fcn1=fminsearch('expfallthree\_all\_events\_mxl',[0.5 0.5 0.02 0.002 0.0002],[],EventLengths,NoEnd,1.5)

fcn1=fminsearch('expfallthree\_all\_events\_mxl',[0.5 0.5 0.2 0.02 0.002],[],EventLengths,NoEnd,1.5)

fcn1=fminsearch('expfallthree\_all\_events\_mxl',[0.5 0.5 0.02 0.002 0.0002],[],EventLengths,NoEnd,1.5)

a1=0.44;a2=0.46;tau14=13.2;tau24=200;tau34=1429;thyme=[0:1:5000];tm=1.5;tx=3600;fcn\_threeall=( 1/ ( a1\*(exp(-tm/tau14)-exp(-tx/tau24))+a2\*(exp(-tm/tau24)-exp(-tx/tau24))+(1-a1-a2)\*(exp(-tm/tau34)-exp(-tx/tau34)) ) )\*...

( a1/tau14\*exp(-thyme/tau14)+a2/tau24\*exp(-thyme/tau24)+(1-a1-a2)/tau34\*exp(-thyme/tau34) );

figure(5);plot(thyme,fcn\_threeall,'x');

hold on; amp2=0.53;tau12=18.6;tau22=435;fcn\_twoall=1/ ( amp2\*(exp(-tm/tau12)-exp(-tx/tau22)) + (1-amp2)\*(exp(-tm/tau22)-exp(-tx/tau22)) )\*( amp2/tau12 \*exp(-thyme/tau12)+(1-amp2)/tau22 \*exp(-thyme/tau22) );

plot(thyme,fcn\_twoall,'c');

eb=[];

errorbar(X,([N(1)'/4 N(2)'/6 N(3)'/20 N(4)'/30 N(5)'/60 N(6)'/60 N(7)'/120 N(8)'/900 N(9)'/2400]/498),eb,'x');

bts=btstrp\_exp2\_all(1000,[0.5 0.1 0.0001],EventLengths,NoEnd,tm);

btsa=bts(:,1);

btsb=bts(:,2);

btsc=bts(:,3);

dfittool;

bts=btstrp\_exp3\_all(1000,[0.5 0.5 0.02 0.002 0.00022],EventLengths,NoEnd,tm);

btsa=bts(:,1);

btsb=bts(:,2);

btsc=bts(:,3);

btsd=bts(:,4);

btse=bts(:,5);

dfittool;

%-- 10/27/2011 12:42 PM --%

%-- 10/27/2011 2:17 PM --%

%-- 10/28/2011 9:25 AM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

folder2=folder;

foldstruc.DriftList=driftlist;

imscroll(foldstruc);

figure(5);

figure(6);

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

cia=Intervals.CumulativeIntervalArray

logik=cia(:,1)==1;

EventLengths=cia(logik,5);

figure(10);hist(EventLengths,50);

figure(10);hist(EventLengths,10);

figure(10);hist(EventLengths,100);

dfittool

figure(10);hist(EventLengths,2500);

figure(10);hist(EventLengths/595,50);

help bar

help barh

help plot

N=histc(EventLengths,[0 3.1 30 60 120 180 300 1200]);

X=[1.55 16.6 45 90 150 240 750];

figure(11);bar(X,N)

N1=[177 157 48 48 27 37 9];

figure(11);bar(X,N1)

help hist

help histc

figure(12);bar(X,EventLengths,'histc')

figure(12);bar(X,N1,'histc')

hold on

bar(X,N1,'histc')

bar(X,N1,('histc'/595))

bar(X,N1,'histc'/595)

bar(X,N1,'histc')

figure(14);bar(X,N1,'histc')

thyme=[0:1:1000];fcn2=[1/ ( amp2\*(exp(-tm/tau12)-exp(-tx/tau22)) + (1-amp2)\*(exp(-tm/tau22)-exp(-tx/tau22)) )\*( amp2/tau12 \*exp(-thyme/tau12)+(1-amp2)/tau22 \*exp(-thyme/tau22) )]\*595;

thyme=[0:1:1000];tm=1.5;tx=3600;amp2=0.58;tau12=4.6;tau22=297;fcn2=[1/ ( amp2\*(exp(-tm/tau12)-exp(-tx/tau22)) + (1-amp2)\*(exp(-tm/tau22)-exp(-tx/tau22)) )\*( amp2/tau12 \*exp(-thyme/tau12)+(1-amp2)/tau22 \*exp(-thyme/tau22) )]\*595;

hold on

plot(thyme,fcn2,'m');

fcn3=amp2 \*exp(-thyme/tau12)+(1-amp2) \*exp(-thyme/tau22)

plot(thyme,fcn3,'m');

fcn4=fcn3\*595;

plot(thyme,fcn4,'m');

fcn3=[(amp2/tau12) \*exp(-thyme/tau12)+((1-amp2)/tau22) \*exp(-thyme/tau22)]\*595;

plot(thyme,fcn3,'m');

help bar

X3=[0 3.1 30 60 120 180 300 1200 3600];

figure(15);bar(X3,N,'histc');

figure(15);bar(X3,EventLengths,'histc');

figure(15);bar(X3,N1,'histc');

X3=[0 3.1 30 60 120 180 300 1200];

figure(15);bar(X3,N1,'histc');

figure(15);bar(X3,N,'histc');

N2=(N(1)'/3.1 N(2)'/27 N(3)'/30 N(4)'/60 N(5)'/60 N(6)'/120 N(7)'/900)

N2=[N(1)'/3.1 N(2)'/27 N(3)'/30 N(4)'/60 N(5)'/60 N(6)'/120 N(7)'/900]

figure(15);bar(X3,N2,'histc');

N3=[57.1 5.8 1.6 0.8 0.45 0.3083 0.1022 0];

figure(15);bar(X3,N3,'histc');

hold on

plot(thyme,fcn3,'m');

%-- 11/3/2011 5:06 PM --%

%-- 11/8/2011 9:22 AM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

%-- 11/12/2011 12:42 PM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

folder2=folder;

foldstruc.DriftList=driftlist;

imscroll(foldstruc);

%-- 11/14/2011 12:28 PM --%

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

%-- 11/15/2011 2:33 PM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

%-- 11/20/2011 11:51 AM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

%-- 11/20/2011 5:55 PM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

folder2=folder;

foldstruc.DriftList=driftlist;

imscroll(foldstruc);

%-- 11/22/2011 4:52 PM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

folder2=folder;

foldstruc.DriftList=driftlist;

imscroll(foldstruc);

load ntcvprp3\_150uw\_drifts.dat -mat

dat=draw\_aoifits\_aois\_v1(aoifits,'y');

xy\_cell{1}.dat=dat(:,:,9);xy\_cell{2}.dat=dat(:,:,6);xy\_cell{3}.dat=dat(:,:,3);

xy\_cell{1}.range=[1 1242];xy\_cell{2}.range=[1 1242];xy\_cell{3}.range=[1 1242];

xy\_cell{1}.userange=1 415];xy\_cell{1}.userange=[260 1013];xy\_cell{1}.userange=[500 1242];

CorrectionRange=[1 1242];SequenceLength=1242;

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[12 12]);

xy\_cell{1}.userange=[1 415];xy\_cell{1}.userange=[260 1013];xy\_cell{1}.userange=[500 1242];

CorrectionRange=[1 1242];SequenceLength=1242;

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[12 12]);

xy\_cell{1}.userange=[1 415];xy\_cell{2}.userange=[260 1013];xy\_cell{3}.userange=[500 1242];

CorrectionRange=[1 1242];SequenceLength=1242;

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[12 12]);

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[18 16]);

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[24 16]);

save c:\Users\ahoskins\matlab\fig-files\imscroll\041611\_ntcvprp3\_150\_drift.dat driftlist

[fn fp]=uigetfile;

folder=[fp fn];

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

folder2=folder;

foldstruc.DriftList=driftlist;

imscroll(foldstruc);

[fn fp]=uigetfile;

folder=[fp fn];

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

folder2=folder;

foldstruc.DriftList=driftlist;

imscroll(foldstruc);

driftlist=[];

aoifits=[];dat=[];

xy\_cell=[];

[fn fp]=uigetfile;

folder=[fp fn];

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

folder2=folder;

foldstruc.DriftList=driftlist;

imscroll(foldstruc);

load 041611\_ntcvprp3\_drifts.dat -mat

dat=draw\_aoifits\_aois\_v1(aoifits,'y');

xy\_cell{1}.dat=dat(:,:,1)

xy\_cell{1}.range=[1 1222];

xy\_cell{1}.userange=[1 1222];

CorrectionRange=[1 1222];SequenceLength=1222;

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[12 12]);

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[18 18]);

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[24 24]);

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[20 20]);

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[50 50]);

save c:\Users\ahoskins\matlab\fig-files\imscroll\041611\_ntcvprp3\_450\_drift.dat driftlist

[fn fp]=uigetfile;

folder=[fp fn];

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

folder2=folder;

foldstruc.DriftList=driftlist;

imscroll(foldstruc);

[fn fp]=uigetfile;

folder=[fp fn];

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

folder2=folder;

foldstruc.DriftList=driftlist;

imscroll(foldstruc);

[fn fp]=uigetfile;

folder=[fp fn];

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

folder2=folder;

foldstruc.DriftList=driftlist;

imscroll(foldstruc);

[fn fp]=uigetfile;

folder=[fp fn];

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

folder2=folder;

imscroll(foldstruc);

dat=[];xy\_cell=[];driftlist=[];aoifits=[];load 061111\_ntcvprp3\_dy647\_150\_drifts.dat -mat

dat=draw\_aoifits\_aois\_v1(aoifits,'y');

xy\_cell{1}.dat=dat(:,:,1)

xy\_cell{1}.range=[1 942];

xy\_cell{1}.userange=[1 942];

CorrectionRange=[1 942];SequenceLength=942;

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[12 12]);

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[18 18]);

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[24 20]);

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[22 20]);

save c:\Users\ahoskins\matlab\fig-files\imscroll\061111\_ntcvprp3\_dy647\_drift.dat driftlist

[fn fp]=uigetfile;

folder=[fp fn];

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

folder2=folder;

imscroll(foldstruc);

foldstruc.gfolder2=fp;

imscroll(foldstruc);

[fn fp]=uigetfile;

folder=[fp fn];

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

folder2=folder;

imscroll(foldstruc);

[fn fp]=uigetfile;

foldstruc.gfolder2=fp;

folder=[fp fn];

foldstruc.gfolder=fp;

images2=images;

folder2=folder;

imscroll(foldstruc);

foldstruc.DriftList=driftlist;

imscroll(foldstruc);

%-- 12/13/2011 11:27 AM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

%-- 12/15/2011 12:45 PM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

x=[6.4 4 5 4.6 2.4 2.6 8.7];

y=[9 8 8 9 9 9 9 4 3 3 1 3 2 2 3 3 2 2 2 2 3 8 4 4 4 4 5 3 3 5 7 7 5 4 4 4 4 4 4 5 3 4 7 7 6 6 6 7 6];

dfittool

cftool

x2=[1:1:9]

y2=[0.02041 0.1224 0.1837 0.2449 0.08 0.08 0.102 0.061 0.102]

cftool

x3=[0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5 8.5];

aaron=[4 2 6 2 2 1 8]

figure(3);plot(aaron,x,'x')

cftool;

%-- 12/19/2011 11:28 AM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

%-- 12/29/2011 1:12 PM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

%-- 12/31/2011 10:32 AM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

load 041611\_ntcvprp3\_150uw\_drifts.dat -mat

load 041611\_ntcvprp3\_drifts.dat -mat

aoifits=[];

load 041611\_ntcvprp3\_150\_drift.dat -mat

[fn fp]=uigetfile;

folder=[fp fn];

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

eval(['load ' [fp fn] ' -mat'])

folder=[fp fn];

foldstruc.gfolder=fp;

images=glimpse\_image(fp,vid,1);

images2=images;

folder2=folder;

foldstruc.DriftList=driftlist;

imscroll(foldstruc);

%-- 1/4/2012 4:15 AM --%

%-- 1/4/2012 4:39 PM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

load 041611\_ntcvprp3\_150\_drift.dat -mat

[fn fp]=uigetfile;

folder=[fp fn];

eval(['load ' [fp fn] ' -mat'])

images=glimpse\_image(fp,vid,1);

images2=images;

foldstruc.gfolder=fp;

images2=images;

folder2=folder;

foldstruc.DriftList=driftlist;

imscroll(foldstruc);

%-- 1/6/2012 4:12 PM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

load 041611\_ntcvprp3\_150\_drift.dat -mat

[fn fp]=uigetfile;

folder=[fp fn];

eval(['load ' [fp fn] ' -mat'])

images=glimpse\_image(fp,vid,1);

images2=images;

foldstruc.gfolder=fp;

images2=images;

folder2=folder;

foldstruc.DriftList=driftlist;

imscroll(foldstruc);

%-- 1/23/2012 8:27 PM --%

%-- 1/23/2012 8:28 PM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

load 041611\_ntcvprp3\_150\_drift.dat -mat

[fn fp]=uigetfile;

imscroll(foldstruc);

folder2=folder;

foldstruc.DriftList=driftlist;

imscroll(foldstruc);

%-- 2/4/2012 12:08 PM --%

images=glimpse\_image(fp,vid,1);

%-- 2/15/2012 3:41 PM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

gui\_particle\_finder

[fn fp]=uigetfile;

folder=[fp fn];

eval(['load ' [fp fn] ' -mat'])

images=glimpse\_image(fp,vid,1);

images2=images;

foldstruc.gfolder=fp;

images2=images;

folder2=folder;

foldstruc.DriftList=driftlist;

imscroll(foldstruc);

%-- 2/20/2012 1:44 PM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

gui\_particle\_finder

[fn fp]=uigetfile;

folder=[fp fn];

eval(['load ' [fp fn] ' -mat'])

images=glimpse\_image(fp,vid,1);

images2=images;

foldstruc.gfolder=fp;

folder2=folder;

foldstruc.DriftList=driftlist;

imscroll(foldstruc);

%-- 2/20/2012 4:41 PM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

gui\_particle\_finder

%-- 2/24/2012 8:17 AM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

%-- 3/9/2012 11:42 AM --%

%-- 3/19/2012 3:53 PM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

[fn fp]=uigetfile;

folder=[fp fn];

eval(['load ' [fp fn] ' -mat'])

images=glimpse\_image(fp,vid,1);

images2=images;

foldstruc.gfolder=fp;

folder2=folder;

foldstruc.DriftList=driftlist;

load 041611\_ntcvprp3\_150\_drift.dat -mat

foldstruc.DriftList=driftlist;

imscroll(foldstruc);

%-- 3/21/2012 3:15 PM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

[fn fp]=uigetfile;

folder=[fp fn];

eval(['load ' [fp fn] ' -mat'])

images=glimpse\_image(fp,vid,1);

images2=images;

foldstruc.gfolder=fp;

folder2=folder;

load 041611\_ntcvprp3\_450\_drift.dat -mat

foldstruc.DriftList=driftlist;

imscroll(foldstruc);

[fn fp]=uigetfile;

eval(['load ' [fp fn] ' -mat'])

images=glimpse\_image(fp,vid,1);

images2=images;

foldstruc.gfolder=fp;

folder2=folder;

driftlist=[];

load 061111\_ntcvprp3\_dy647\_drift.dat -mat

imscroll(foldstruc);

x=vid.ttb';

y=438101860-438098976

gui\_particle\_finder

%-- 3/28/2012 10:03 AM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

[fn fp]=uigetfile;

folder=[fp fn];

eval(['load ' [fp fn] ' -mat'])

images=glimpse\_image(fp,vid,1);

images2=images;

foldstruc.gfolder=fp;

folder2=folder;

load 052111\_u2vcef1\_150uw\_drift.dat -mat

imscroll(foldstruc);

load 052111\_u2vcef1\_150uw\_drift.dat -mat

load 041611\_ntcvprp3\_150\_drift.dat -mat

driftlist=[];

load 052111\_u2vcef1\_150uw\_drift.dat -mat

load 052111\_u2vcef1\_150\_drift.dat -mat

imscroll(foldstruc);

foldstruc.gfolder=fp;

foldstruc.DriftList=driftlist;

imscroll(foldstruc);

gui\_particle\_finder:

gui\_particle\_finder;

driftlist=[];

[fn fp]=uigetfile;

folder=[fp fn];

eval(['load ' [fp fn] ' -mat'])

images=glimpse\_image(fp,vid,1);

images2=images;

folder2=folder;

imscroll(foldstruc);

gui\_particle\_finder;

folder=[fp fn];

eval(['load ' [fp fn] ' -mat'])

images=glimpse\_image(fp,vid,1);

images2=images;

foldstruc.gfolder=fp;

folder2=folder;

imscroll(foldstruc);

load default.dat -mat

dat=draw\_aoifits\_aois\_v1(aoifits,'y');

xy\_cell{1}.dat=dat(:,:,3);xy\_cell{2}.dat=dat(:,:,4);;xy\_cell{3}.dat=dat(:,:,4);

xy\_cell{1}.range=[1 1222];xy\_cell{2}.range=[1 1222];xy\_cell{3}.range=[1 1222];

xy\_cell{1}.userange=[1 479];xy\_cell{2}.userange=[478 494];xy\_cell{3}.userange=[497 1222];

CorrectionRange=[1 1222];SequenceLength=1222;

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[12 12]);

load 041611\_u2vcef1\_drift.dat -mat

dat=draw\_aoifits\_aois\_v1(aoifits,'y');

xy\_cell{1}.dat=dat(:,:,3);xy\_cell{2}.dat=dat(:,:,4);;xy\_cell{3}.dat=dat(:,:,4);

xy\_cell{1}.range=[1 1222];xy\_cell{2}.range=[1 1222];xy\_cell{3}.range=[1 1222];

xy\_cell{1}.userange=[1 479];xy\_cell{2}.userange=[478 494];xy\_cell{3}.userange=[497 1222];

CorrectionRange=[1 1222];SequenceLength=1222;

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[12 12]);

xy\_cell{1}.dat=dat(:,:,1;)

xy\_cell{1}.dat=dat(:,:,1);

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[12 12]);

xy\_cell{1}.dat=dat(:,:,2);

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[12 12]);

=1.79/349300

1.79/349300

\*10

save c:\Users\ahoskins\matlab\fig-files\imscroll\041611u2cef1fsnapfr3\_150uw\_drift.dat driftlist

0.081\*10\*10

8.1/151000

driftlist=construct\_driftlist(xy\_cell,CorrectionRange,SequenceLength,[12 12]);

[fn fp]=uigetfile;

folder=[fp fn];

eval(['load ' [fp fn] ' -mat'])

images=glimpse\_image(fp,vid,1);

images2=images;

foldstruc.gfolder=fp;

folder2=folder;

imscroll(foldstruc);

oifits

aoifits

[fn fp]=uigetfile;

folder=[fp fn];

eval(['load ' [fp fn] ' -mat'])

images=glimpse\_image(fp,vid,1);

images2=images;

foldstruc.gfolder=fp;

folder2=folder;

foldstruc.DriftList=driftlist;

imscroll(foldstruc);

%-- 4/16/2012 8:06 AM --%

x=spots\_per\_time(:,1);

x=spots\_per\_time(:,2);

x=spots\_per\_time(:,1);

y=spots\_per\_time(:,2);

figure(3);plot(x,y)

x2=spots\_per\_time(:,1);

y2=spots\_per\_time(:,2);

figure(4);plot(x2,y2)

%-- 6/4/2012 2:09 PM --%

path(path,genpath('c:\Users\ahoskins\matlab\'))

gui\_particle\_finder;

intiffpath='C:\Users\ahoskins\Desktop\Joe\movie3.tif'

user='joe'

user

frames=[1 1000];

out\_path='C:\Users\ahoskins\Desktop\Joe\movie3\_glimps001'

glimpse\_from\_tiff(intiffpath,frames,out\_path,user)

out\_path='C:\Users\ahoskins\Desktop\Joe\'

glimpse\_from\_tiff(intiffpath,frames,out\_path,user)

gui\_particle\_finder;

glimpse\_from\_tiff(intiffpath,frames,out\_path,user)

frames=[1 1]

glimpse\_from\_tiff(intiffpath,frames,out\_path,user)

gui\_particle\_finder;

[fn fp]=uigetfile;

folder=[fp fn];

eval(['load ' [fp fn] ' -mat'])

images=glimpse\_image(fp,vid,1);

images2=images;

foldstruc.gfolder=fp;

folder2=folder;

imscroll(foldstruc);

intiffpath='C:\Users\ahoskins\Desktop\Joe\New folder\slide1.tif'

out\_path='C:\Users\ahoskins\Desktop\JoeTrial\'

frames=[1 1000]

glimpse\_from\_tiff(intiffpath,frames,out\_path,user)

[fn fp]=[];

folder=[fp fn];

[fn fp]=uigetfile;

folder=[fp fn];

eval(['load ' [fp fn] ' -mat'])

images=glimpse\_image(fp,vid,1);

images2=images;

foldstruc.gfolder=fp;

folder2=folder;

imscroll(foldstruc);

header.mat

vid

frames=[1 2 3]

glimpse\_from\_tiff(intiffpath,frames,out\_path,user)

folder=[fp fn];

[fn fp]=uigetfile;

folder=[fp fn];

eval(['load ' [fp fn] ' -mat'])

images=glimpse\_image(fp,vid,1);

images2=images;

foldstruc.gfolder=fp;

folder2=folder;

vid

vid=[];

header.mat=[];

frames=[1:1000];

glimpse\_from\_tiff(intiffpath,frames,out\_path,user)

[fn fp]=uigetfile;

folder=[fp fn];

eval(['load ' [fp fn] ' -mat'])

images=glimpse\_image(fp,vid,1);

images2=images;

foldstruc.gfolder=fp;

folder2=folder;

vid=[];

vid

folder=[fp fn];

eval(['load ' [fp fn] ' -mat'])

vid

x=vid.ttb

imscroll(foldstruc);

foldstruc.gfolder2=fp;

imscroll(foldstruc);

gui\_particle\_finder;

imscroll(foldstruc);

%-- 6/5/2012 4:54 PM --%