Bayesian MSD Transcript

q = sim\_video\_diff\_expt;

q = sim\_video\_diff\_expt('test.mat');

q

[q,sim] = sim\_video\_diff\_expt('test.mat');

sim

[q,sim] = sim\_video\_diff\_expt('test.mat', sim);

sim.bead\_radius = 0.25e-6

[q,sim] = sim\_video\_diff\_expt('test.mat', sim);

[q,simout] = sim\_video\_diff\_expt('test.mat', sim);

clear all;

sim.numpaths = 35;

sim.bead\_radius = 100e-9;

sim

[q,simout] = sim\_video\_diff\_expt('test.mat', sim);

sim

simout

clc

sim=simout

sim.bead\_radius=2e-6

sim.viscosity=0

sim.frame=55

sim = rmfield(sim. 'frame')

sim = rmfield(sim.frame)

sim=simout

sim.bead\_radius=2e-6

sim.frame\_rate=55

sim.viscosity=.001

[q,simout] = sim\_video\_diff\_expt('viscosity\_H2O.mat', sim);

q

sim.viscosity=.01

[q,simout] = sim\_video\_diff\_expt('viscosity\_blood.mat', sim);

sim.viscosity=2.5

[q,simout] = sim\_video\_diff\_expt('viscosity\_karo.mat', sim);

evt\_GUI

clc

simout

frames = [1:3300-1]';

time = frames / 55;

frames = [0:3300-1]';

time = frames / 55;

ls \*.mat %list .mat files

open video\_msd

sim

msd\_H2O = video\_msd('viscosity\_H2O.vrpn.mat', 250, sim.frame\_rate, sim.calib\_um, 'y');

msd\_H2O = video\_msd('viscosity\_H2O.vrpn.mat', [1:10 20:10:100 200:100:1000], sim.frame\_rate, sim.calib\_um, 'y');

msd\_H2O = video\_msd('viscosity\_H2O.vrpn.mat', 35, sim.frame\_rate, sim.calib\_um, 'y');

msd\_H2O = video\_msd('viscosity\_H2O.vrpn.mat', 50, sim.frame\_rate, sim.calib\_um, 'y');

newmsd = msd\_H2O.msd(1:39, :);

msd\_H2O = video\_msd('viscosity\_H2O.vrpn.mat', 50, sim.frame\_rate, sim.calib\_um, 'y');

newmsd = msd\_H2O.msd(1:39, :);

time\_scales = msd\_H2O.tau(1:39,1);

msd\_params.models = {'N','D','DA','DR','V','DV','DAV','DRV'};

results = msd\_curves\_bayes(time\_scales, newmsd, msd\_params);

Bayes\_model\_prob