GUIDE MATLAB
Membuat Grafik 3D dan 2D difusi fokker-plank

Riki Chandra Wijaya,M.Pd.,M.T.

Persamaan Difusi Fokker Planck

Dengan Visualisasi 3-D dari perubahan pdf satu unit pada sumbu x=0.1 mil

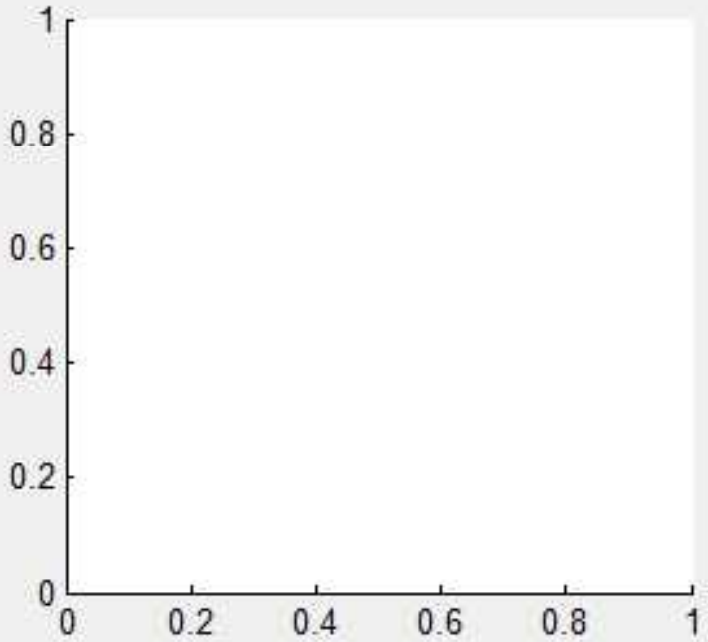
c

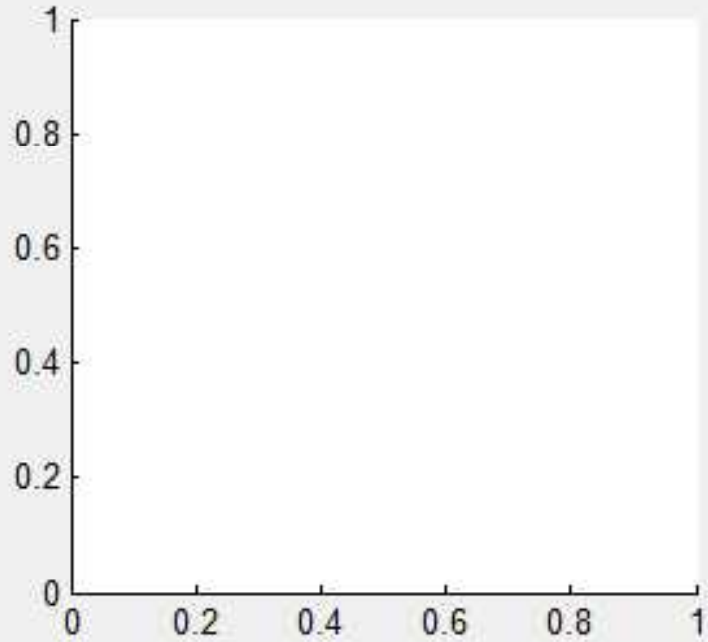
d

Solusi 3-D

Solusi 2-D

Reset





Desain figure

- Static text 3 buah

1. Judul 1 buah
2. Variabel input 2 buah

- Push button 3 buah

1. Grafik 2 buah
2. Reset 1 buah

Function push_button1

- axes(handles.axes1)
- c=str2num(get(handles.edit1,'String'))
- d=str2num(get(handles.edit2,'String'))
- t=[0 0.25 0.5 1 2];
- x=c*t
- [x,t]=meshgrid(0.006:0.1:10,0.006:0.03:1);
- p=(1./sqrt(4*pi.*d.*t)).*exp(-(x-2.*c.*t).^2./(4.*d.*t));
- p1=p/3.6112;
- axis([0 100 0 35 0 0.8]);
- %hold on;
- mesh(p1);
- %hold off;
- Title('Solusi persamaan Difusi Fokker-Planck ');
- xlabel('Sumbu x (unit = 0.1 mil)');
- ylabel('sumbu y (unit = 3 menit)');
- zlabel('p(t,x)');

Function push_button2

- set(handles.edit1,'String',' ');
- set(handles.edit2,'String',' ');

Function push_button3

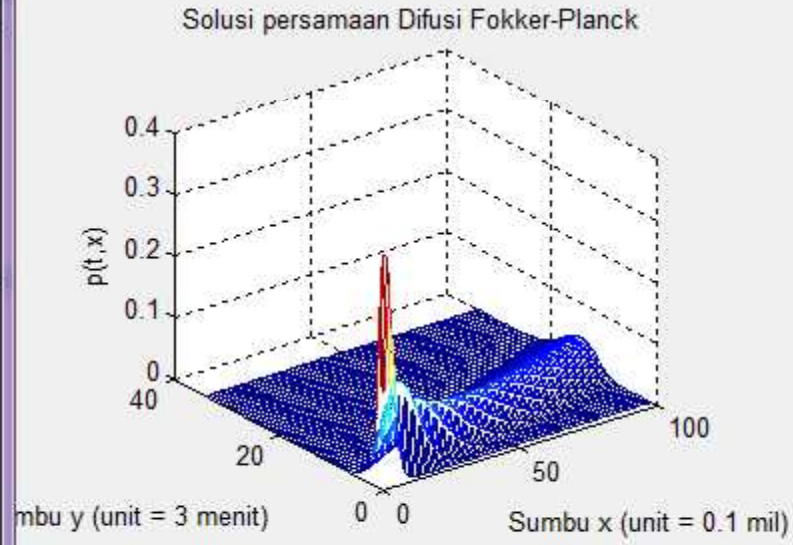
- axes(handles.axes2)
- c=str2num(get(handles.edit1,'String'))
- d=str2num(get(handles.edit2,'String'))
- t=[0 0.25 0.5 1 2];
- x=c*t
- [x,t]=meshgrid(0.006:0.1:10,0.006:0.03:1);
- p=(1./sqrt(4*pi.*d.*t)).*exp(-(x-2.*c.*t).^2./(4.*d.*t));
- p1=p/3.6112;
- axis([0 100 0 35 0 0.8]);
- %hold on;
- plot(p1,'-');
- %hold off;
- Title('Solusi persamaan Difusi Fokker-Planck dengan c=7, d=3');
- xlabel('Sumbu x (unit = 0.1 mil)');
- ylabel('sumbu y (unit = 3 menit)');

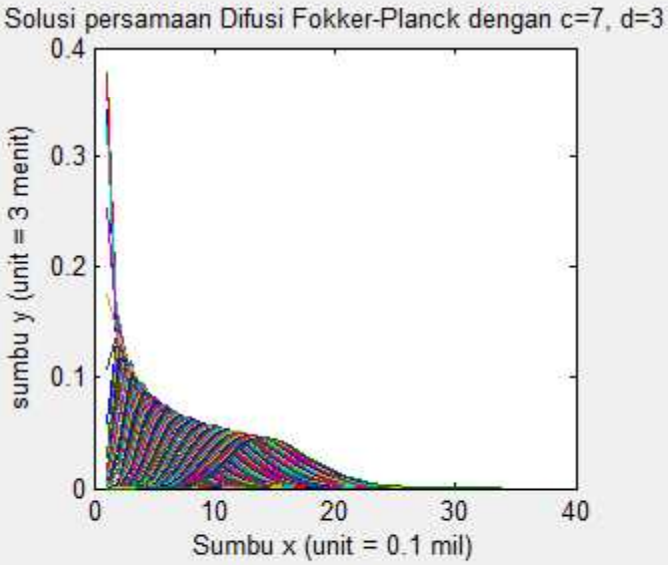
Persamaan Difusi Fokker Planck

Dengan Visualisasi 3-D dari perubahan pdf satu unit pada sumbu x=0.1 mil

c 12 Solusi 3-D Solusi 2-D

d 7 Reset





Download Materi:

rikichandrawijaya.unja.ac.id