

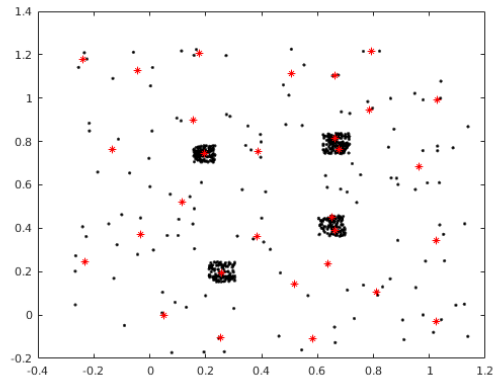
HW Solutions from Mar 26 Clustering Lab

K-Means

```
load HWMar26data;
clear A B
X=C;

[idx,C,disterr]=kmeans(X,30);

plot(X(:,1),X(:,2),'k. ');hold on;
plot(C(:,1),C(:,2),'r* ');hold off;
```

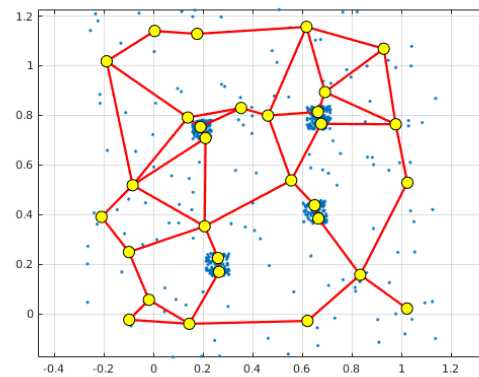


Neural Gas

```
load HWMar26data;
X = C;
clear A B C

params.N = 30;
params.MaxIt = 30;
params.tmax = 9000;
params.epsilon_initial = 0.05;
params.epsilon_final = 0.001;
params.lambda_initial = 0.9;
params.lambda_final = 0.1;
params.T_initial = 5;
params.T_final = 30;

net = NeuralGasNetwork(X, params);
PlotResults(X,net.w,net.C);
```



DBSCAN

```
load HWMar26data
X=C;
clear A B C

epsilon=0.04;
MinPts=4;
IDX=DBSCAN(X,epsilon,MinPts);

%% Plot Results
PlotClusterinResult(X, IDX);
```

