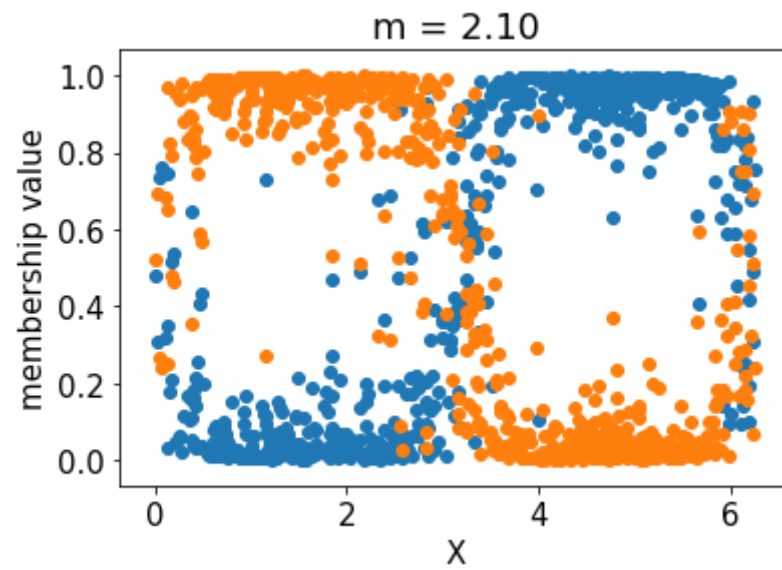1) number of target clusters: 2
   membership values of X by clusters:

m = 2.10

membership values of Y by clusters:

m = 2.10

degranularized function $\widehat{y}(x)$ over the scatter plot of the original data:

degranularized function $\hat{y}(x)$ over the scatter plot of the original data if define clusters only by X data:
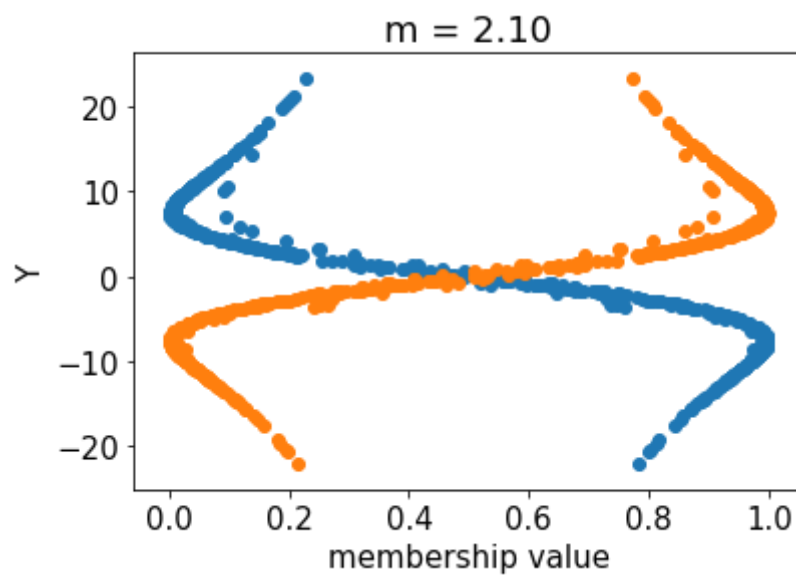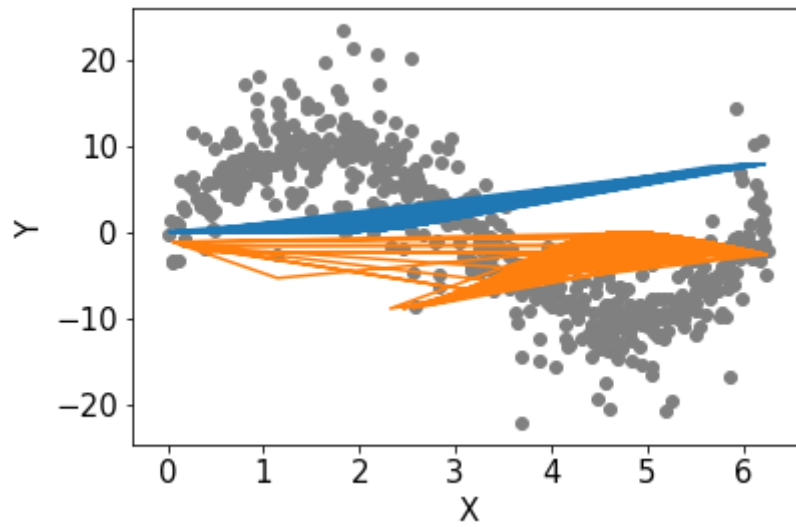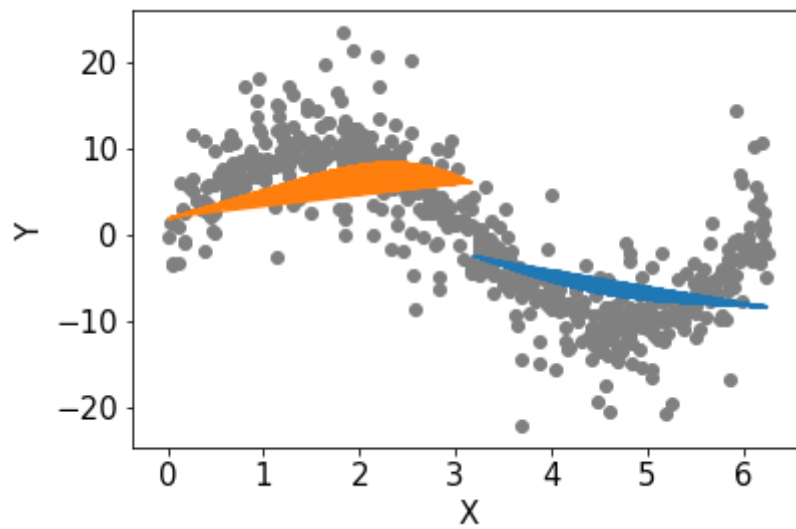

2) number of target clusters: 3
membership values of X by clusters:
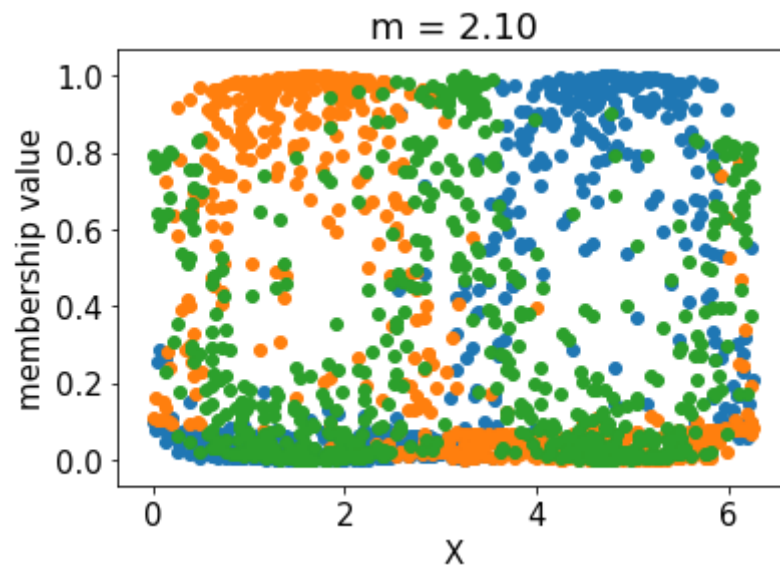
membership values of Y by clusters:

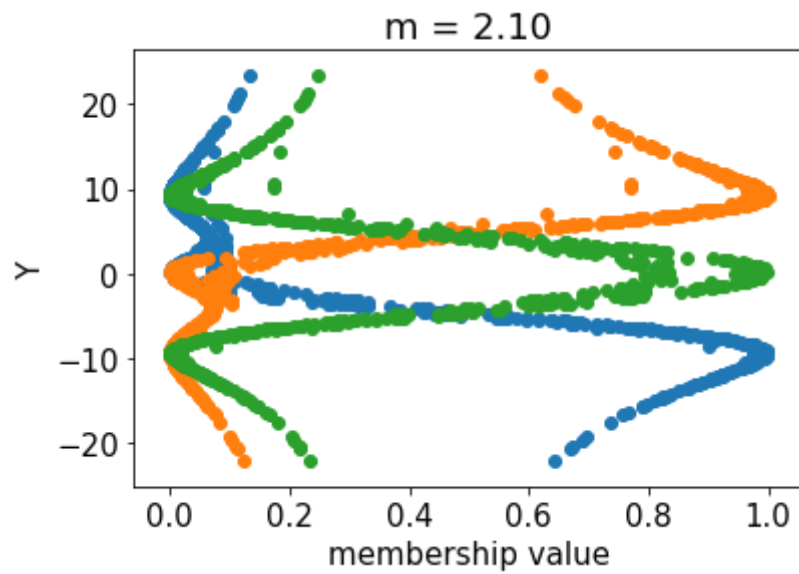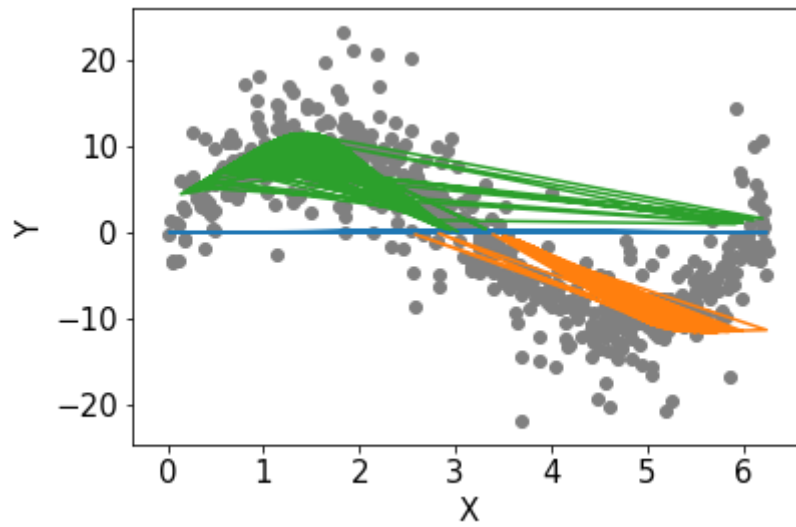degranularized function $\widehat{y}(x)$ over the scatter plot of the original data:

degranularized function $\widehat{y}(x)$ over the scatter plot of the original data if define clusters only by X data:

3) number of target clusters: 5
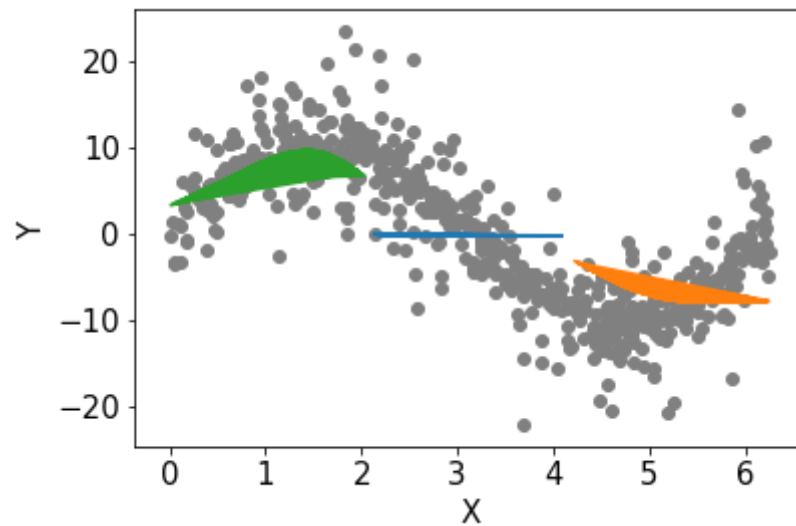membership values of X by clusters:

m = 2.10

membership values of Y by clusters:

m = 2.10

degranularized function $\widehat{y}(x)$ over the scatter plot of the original data:

degranularized function $\widehat{y}(x)$ over the scatter plot of the original data if define clusters only by X data:

4) number of target clusters: 7
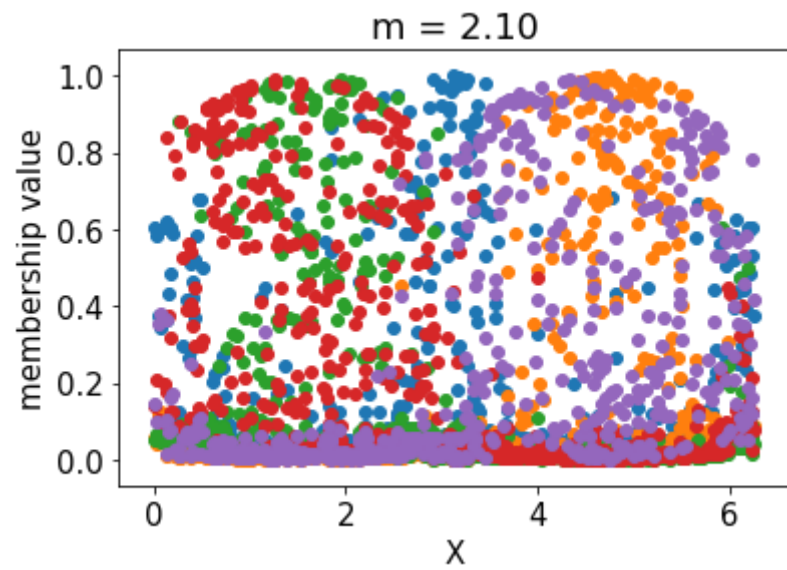membership values of X by clusters:

membership values of Y by clusters:

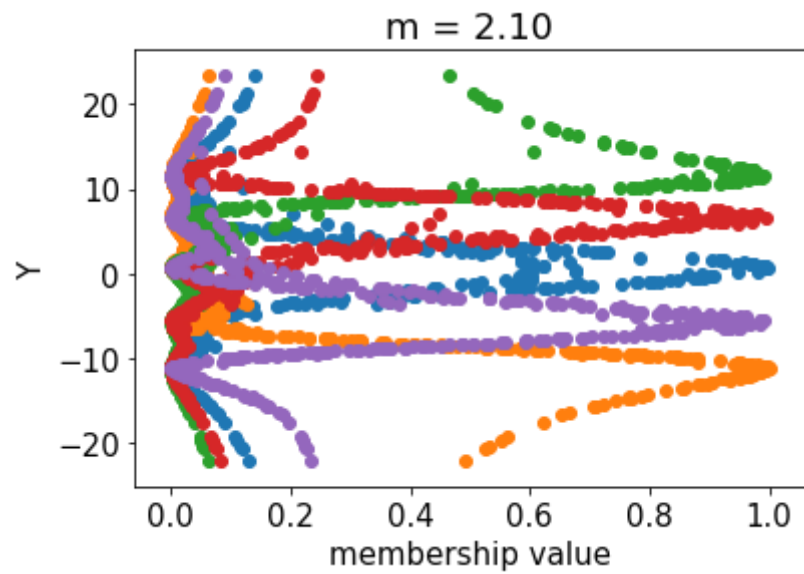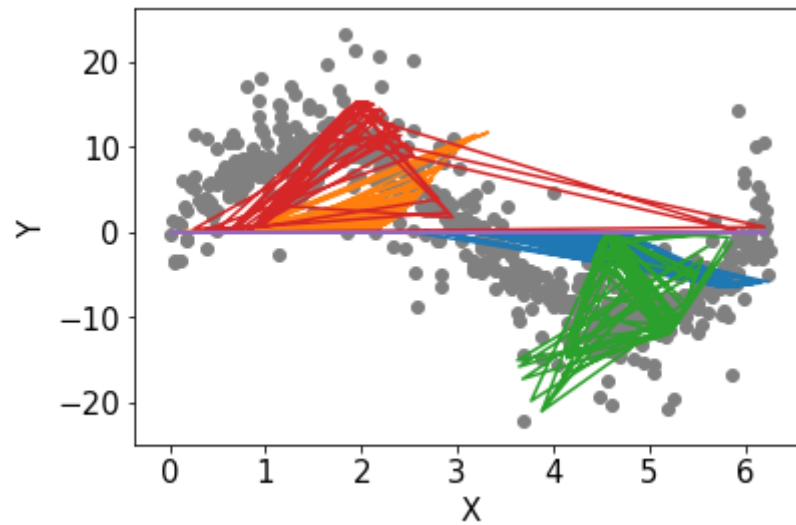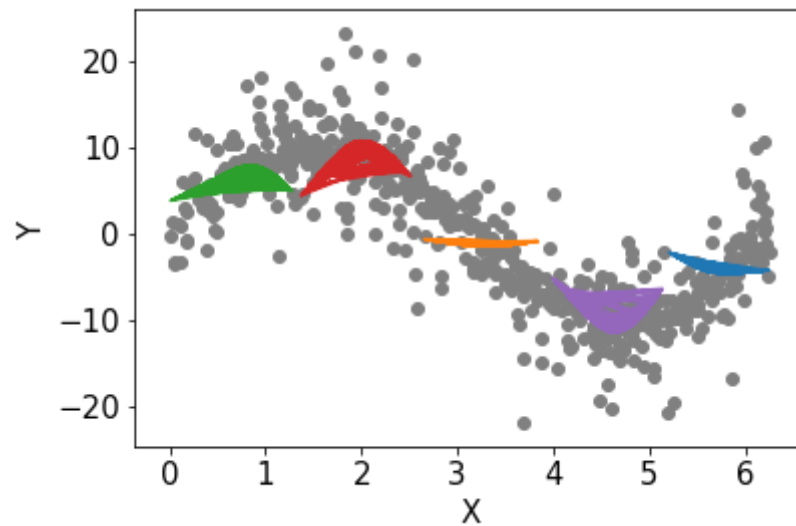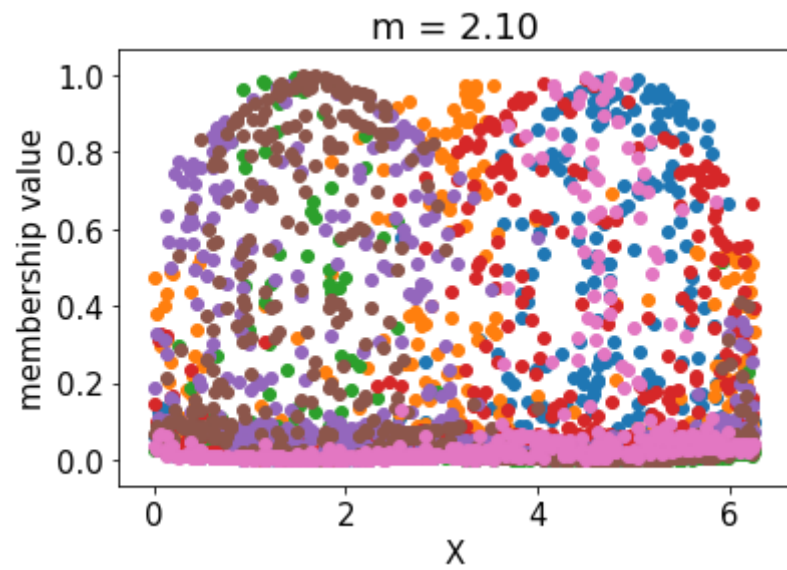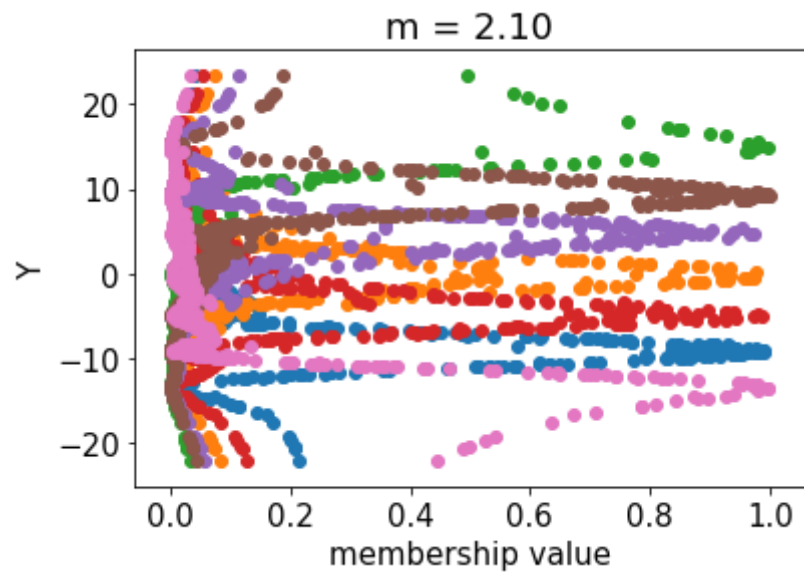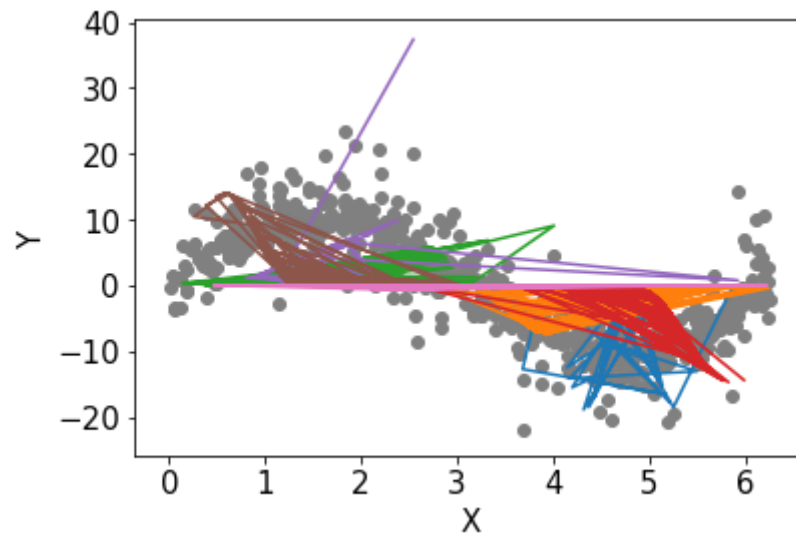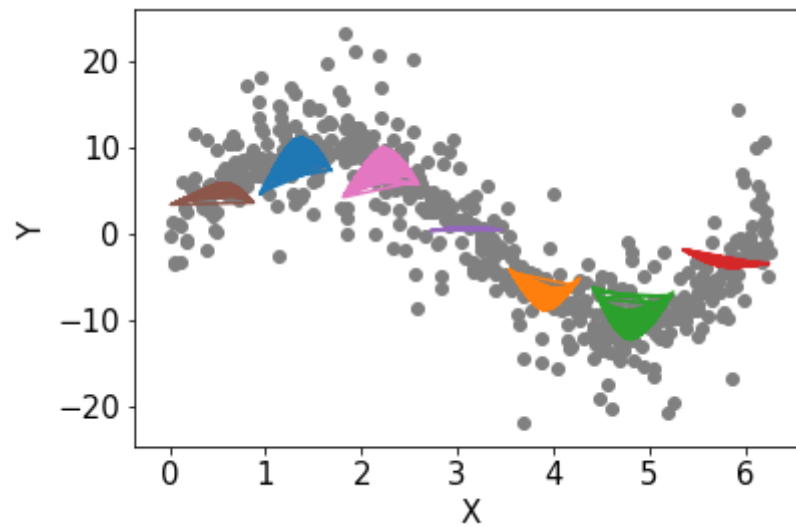degranularized function $\widehat{y}(x)$ over the scatter plot of the original data:
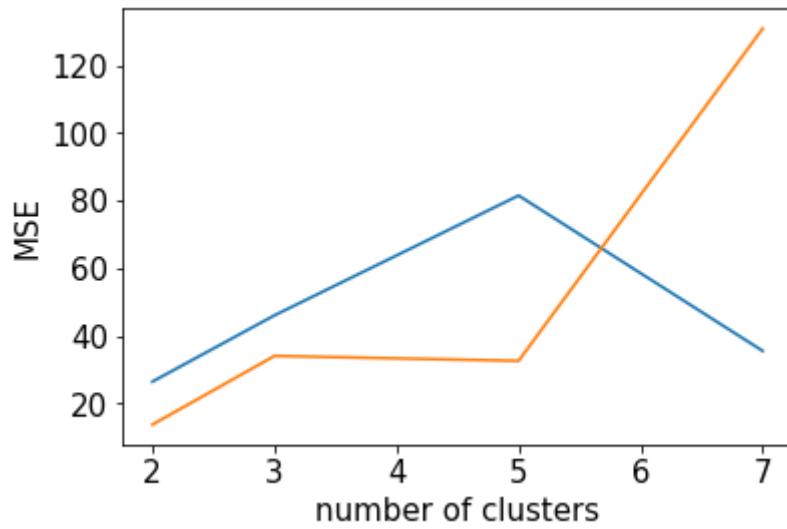
degranularized function $\widehat{y}(x)$ over the scatter plot of the original data if define clusters only by X data:

MSE value for different number of clusters. Blue line for clusters defined by X, Y. Orange line for clusters defined only by X.

Fitting local regression more precise for clusters defined only by X data, but with increasing of number of clusters this areas of degranulized covers data worse and MSE value increases.