

CCOD
Melnikov Artem, AS-36
Lab 7, 15.10.2016

Table of rules:

	if x1	if x2	if x3	if x4
Setosa	medium	large	very small	very small
Vericolor	very large	large	medium	medium
Verginiea	very large	large	very large	very large

Membership Function for Very Small: $e^{\frac{-(x-0.143667)^2}{0.00385}}$

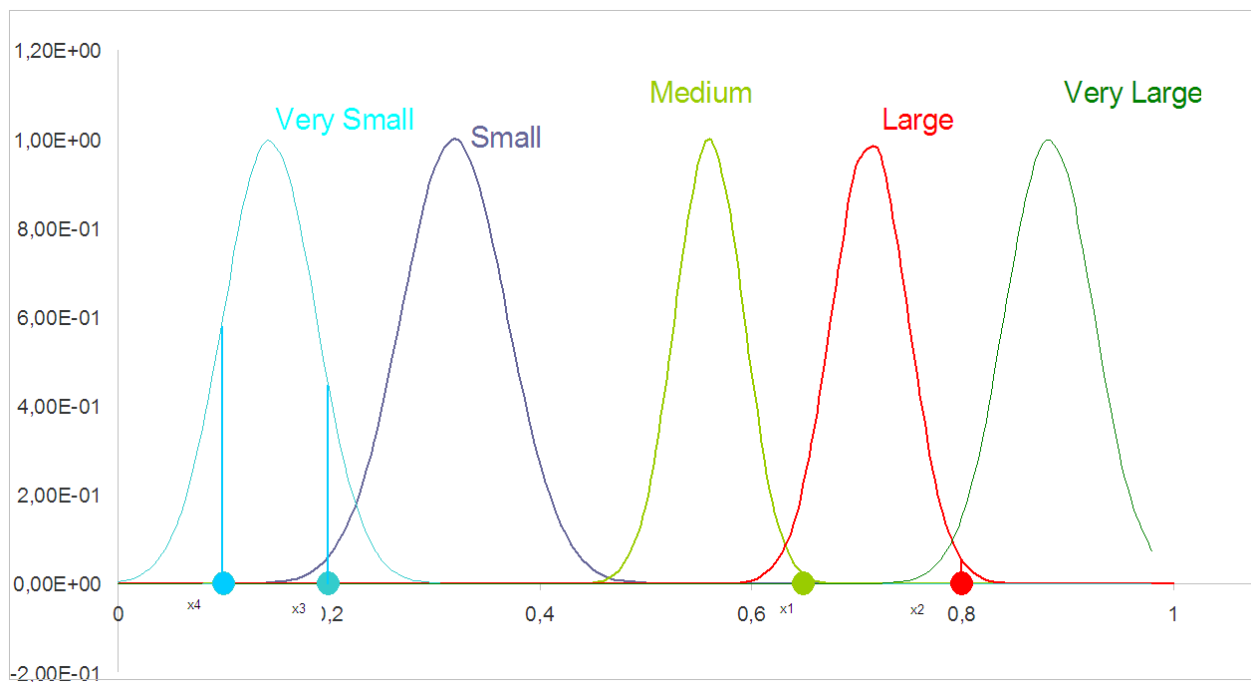
Membership Function for Small: $e^{\frac{-(x-0.318571)^2}{0.005069}}$

Membership Function for Medium: $e^{\frac{-(x-0.560488)^2}{0.002102}}$

Membership Function for Large: $e^{\frac{-(x-0.712558)^2}{0.002626}}$

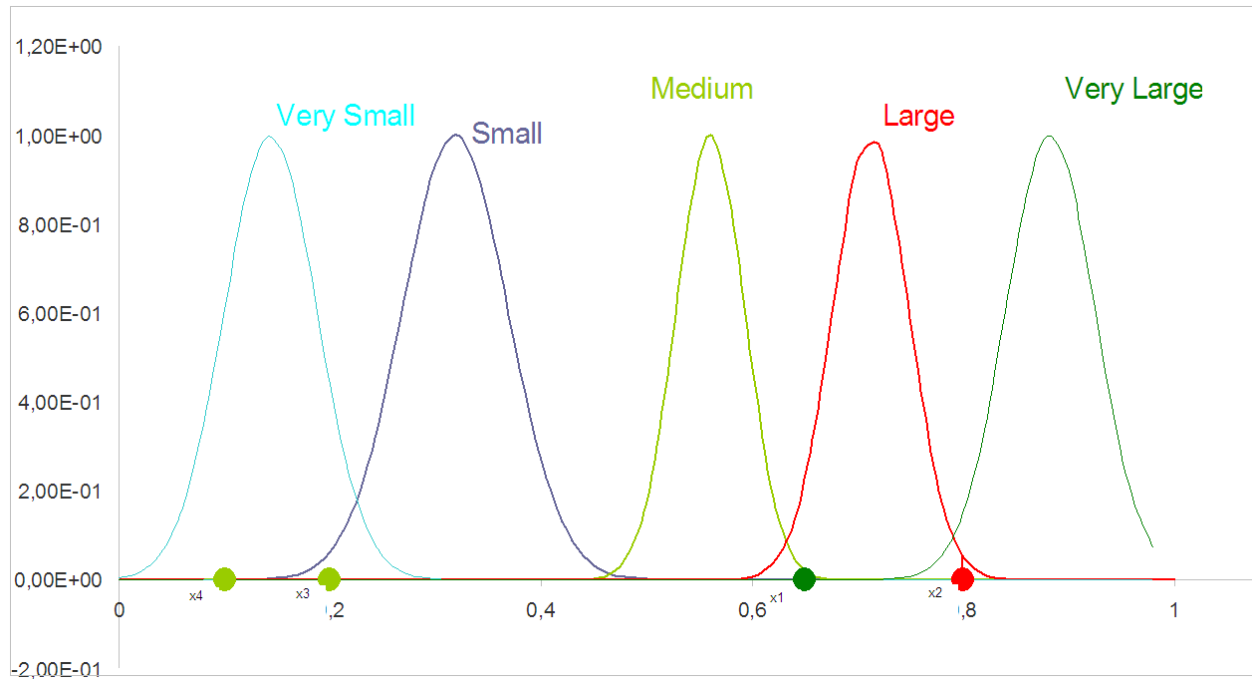
Membership Function for Very Large: $e^{\frac{-(x-0.88275)^2}{0.003615}}$

Rule 1: if x1=medium if x2=large if x=very small if x4=very small then Setosa



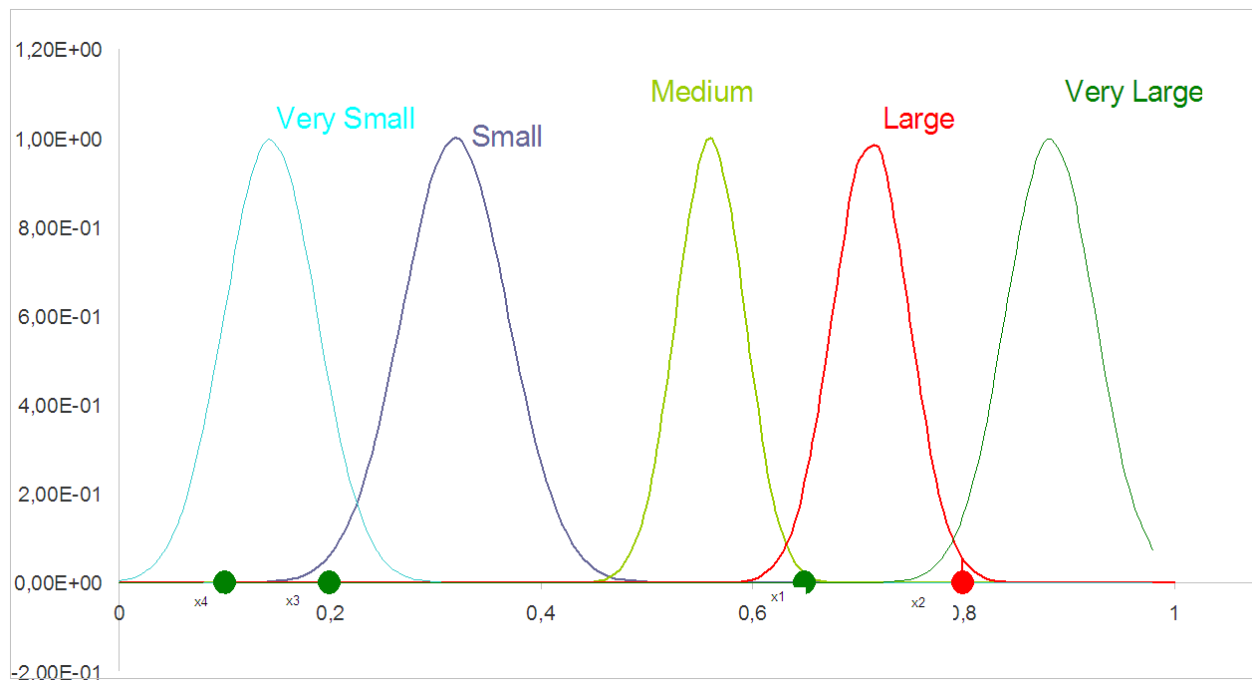
$$M=0.0221*0.0543*0.4385*0.3489=0.00018$$

Rule 2: if x1=very large if x2=large if x3=medium if x4=medium then Veriscolor



$$M=3.1029e-7*0.0543*1.4325e-27*2.0173e-48=4.8452e-83$$

Rule 3: if x1=very large if x2=large if x3= very large if x4= very large then Virginia



$$M=3.1029e-7*0.0543*9.9440e-57*3.8159e-78=6.4035e-142$$

$$y=0.00018 / 0.00018 = 1$$