1. Granularity using intervals A:

$A_0 = [a_0 (1 - \varepsilon_1), a_0 (1 + \varepsilon_1)]$

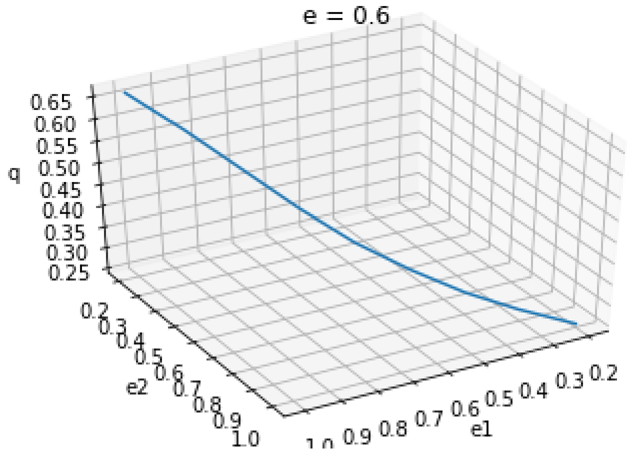
$A_1 = [a_1 (1 - \varepsilon_2), a_1 (1 + \varepsilon_2)]$

2. Coverage and specificity functions:

$$cov(\epsilon_1, \epsilon_2) = \frac{1}{N} \sum_{i=1}^{N} I(y_i \in Y(x_i, \epsilon_1, \epsilon_2))$$

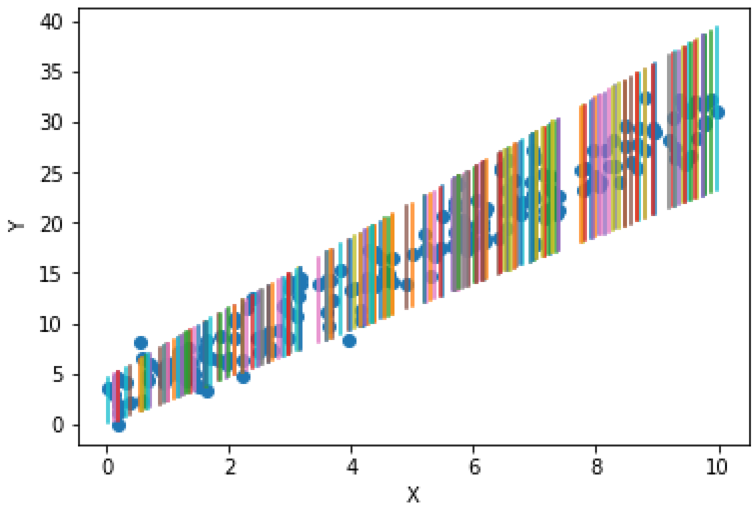
$$sp(\epsilon_1, \epsilon_2) = \frac{1}{N} \sum_{i=1}^{N} 1 - min(1, \frac{Y^+(x_i, \epsilon_1, \epsilon_2) - Y^-(x_i, \epsilon_1, \epsilon_2)}{R})$$

3. $Q(\varepsilon_1, \varepsilon_2)$ for $\varepsilon = 0.6$

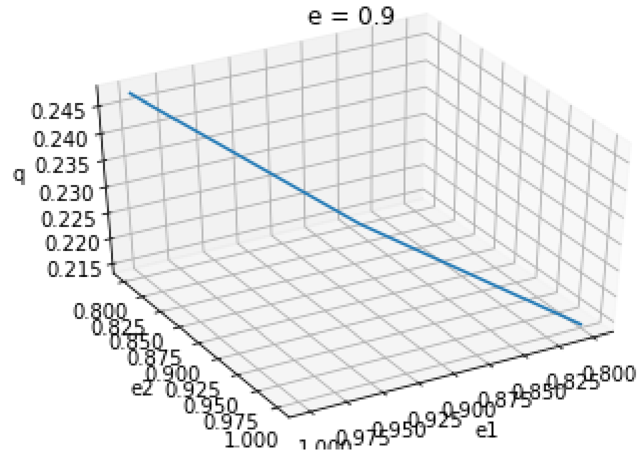


Maximal value Q for $\varepsilon_1 = 1, \varepsilon_2 = 0.2$

Intervals $Y(x)$ for $\varepsilon_1 = 1, \varepsilon_2 = 0.2$:

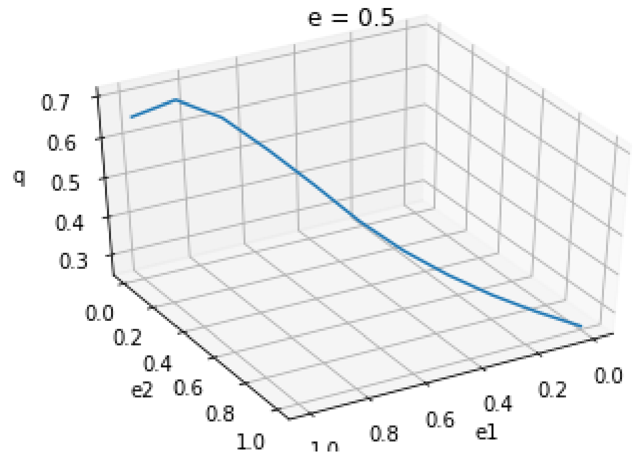


4. $Q(\varepsilon_1, \varepsilon_2)$ for $\varepsilon = 0.9$



We observe a decrease in the values of $Q(\varepsilon_1, \varepsilon_2)$ function.

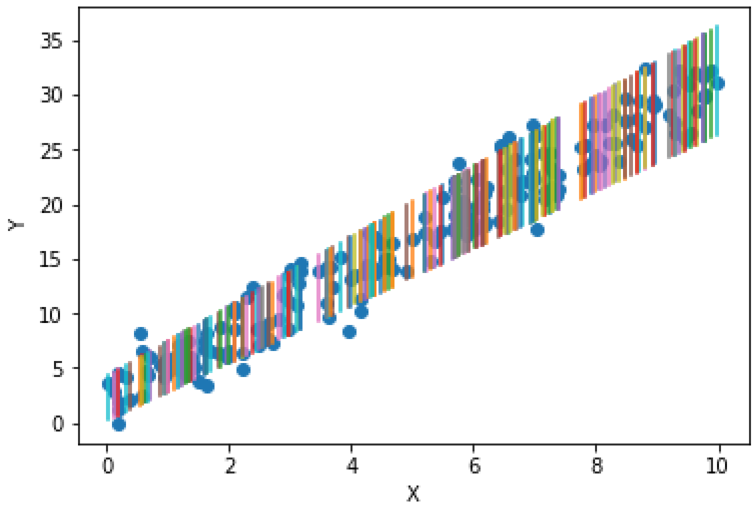
5. $Q(\varepsilon_1, \varepsilon_2)$ for $\varepsilon = 0.5$



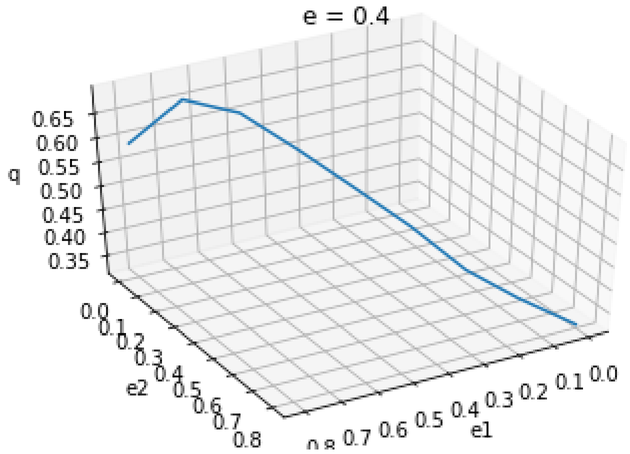
We observe an increase in the values of $Q(\varepsilon_1, \varepsilon_2)$ function.

Maximal value Q for $\varepsilon_1 = 0.9, \varepsilon_2 = 0.1$

Intervals $Y(x)$ for $\varepsilon_1 = 0.9, \varepsilon_2 = 0.1$:



6. $Q(\varepsilon_1, \varepsilon_2)$ for $\varepsilon = 0.4$



We observe a decrease in the values of $Q(\varepsilon_1, \varepsilon_2)$ function.

⇒ optimal level of granularity is $\varepsilon = 0.5$, with $\varepsilon_1 = 0.9, \varepsilon_2 = 0.1$. For this values we achieve maximum $Q(\varepsilon_1, \varepsilon_2) = cov(\varepsilon_1, \varepsilon_2) * sp(\varepsilon_1, \varepsilon_2)$ according to principle of justifiable granularity.