

Overlap(x, y)

$$\frac{|X \cap Y|}{\min(|X|, |Y|)}$$

$$\frac{\sum_{i=1}^t \min(x_i, y_i)}{\min\left(\sum_{i=1}^t x_i, \sum_{i=1}^t y_i\right)}$$

Dice(x, y)

$$2 \frac{|X \cap Y|}{|X| + |Y|}$$

$$2 \frac{\sum_{i=1}^t x_i y_i}{\sum_{i=1}^t x_i^2 + \sum_{i=1}^t y_i^2}$$

Jaccard(x, y)

$$\frac{|X \cap Y|}{|X| + |Y| - |X \cap Y|}$$

$$\frac{\sum_{i=1}^t x_i y_i}{\sum_{i=1}^t x_i^2 + \sum_{i=1}^t y_i^2 - \sum_{i=1}^t x_i y_i}$$