

**Manhattan**  $d = \sum_{i=1}^d |P_i - Q_i|$

**Euclidean**  $d = \sqrt{\sum_{i=1}^d |P_i - Q_i|^2}$

**Minkowski**  $d = \sqrt[p]{\sum_{i=1}^d |P_i - Q_i|^p}$

**Sorensen**  $d = \frac{\sum_{i=1}^d |P_i - Q_i|}{\sum_{i=1}^d (P_i + Q_i)}$

**Gower**  $d = \frac{1}{d} \cdot \sum_{i=1}^d |P_i - Q_i|$

**Canberra**  $d = \sum_{i=1}^d \frac{|P_i - Q_i|}{P_i + Q_i}$

**Lorentzian**  $d = \sum_{i=1}^d \ln(1 + |P_i - Q_i|)$

**Wave Hedges**  $d = \sum_{i=1}^d \frac{|P_i - Q_i|}{\max(P_i, Q_i)}$

**Czekanowski**  $d = \frac{2 \cdot \sum_{i=1}^d \min(P_i, Q_i)}{\sum_{i=1}^d (P_i + Q_i)}$

**Tanimoto**  $d = \frac{\sum_{i=1}^d (\max(P_i, Q_i) - \min(P_i, Q_i))}{\sum_{i=1}^d \max(P_i, Q_i)}$

**Jaccard**  $d = \frac{\sum_{i=1}^d (P_i - Q_i)^2}{\sum_{i=1}^d P_i^2 + \sum_{i=1}^d Q_i^2 - \sum_{i=1}^d P_i \cdot Q_i}$

**Dice**  $d = \frac{\sum_{i=1}^d (P_i - Q_i)^2}{\sum_{i=1}^d P_i^2 + \sum_{i=1}^d Q_i^2}$

**Cosine**  $d = \frac{\sum_{i=1}^d P_i \cdot Q_i}{\sqrt{\sum_{i=1}^d P_i^2} \cdot \sqrt{\sum_{i=1}^d Q_i^2}}$

**Bhattacharyya**  $d = -\ln \sum_{i=1}^d \sqrt{P_i \cdot Q_i}$

**Hellinger**  $d = 2 \cdot \sqrt{1 - \sum_{i=1}^d \sqrt{P_i \cdot Q_i}}$

**Squared-Chord**  $= \sum_{i=1}^d (\sqrt{P_i} - \sqrt{Q_i})^2$

**Neyman**  $d = \sum_{i=1}^d \frac{(P_i - Q_i)^2}{P_i}$

**Probabilistic Symmetric**  $d = 2 \cdot \sum_{i=1}^d \frac{(P_i - Q_i)^2}{P_i + Q_i}$

**Clark**  $d = \sqrt{\sum_{i=1}^d \left(\frac{|P_i - Q_i|}{P_i + Q_i}\right)^2}$

**Additive Symmetric**  $d = \sum_{i=1}^b \frac{(P_i - Q_i)^2 \cdot (P_i + Q_i)}{P_i \cdot Q_i}$

**Jeffreys**  $d = \sum_{i=1}^d (P_i - Q_i) \cdot \ln \frac{P_i}{Q_i}$

**Jensen difference**  $d = \sum_{i=1}^b \left( \left( \frac{P_i \cdot \ln P_i + Q_i \cdot \ln Q_i}{2} \right) - \left( \frac{P_i + Q_i}{2} \right) \cdot \ln \left( \frac{P_i + Q_i}{2} \right) \right)$

**Kumar-Johnson**  $d = \sum_{i=1}^d \frac{(P_i^2 - Q_i^2)^2}{2 \cdot (P_i \cdot Q_i)^{\frac{3}{2}}}$

**Avg**  $d = \frac{\sum_{i=1}^d |P_i - Q_i| + \max |P_i - Q_i|}{2}$