Chapter 7 Ecological resemblance

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Table 1: Distances

D	Formula	Summary
D1	$D1(x_1, x_2) = \sqrt{\sum_{j=1}^{p}(y_{1j} - y_{2j})^2}$	Euclidean's distance/ pythagoras formula
D2	$D2(x_1, x_2) = \sqrt{\frac{1}{p}\sum_{j=1}^{p}(y_{1j} - y_{2j})^2}$	Average distance of Euclidean's distance
D3	$D3(x_1, x_2) = \sqrt{2(1 - \frac{\sum_{j=1}^{p} y_{1j} * y_{2j}}{\sum_{j=1}^{p} y_{1j}^2 * \sum_{j=1}^{p} y_{2j}^2})}$	Chord distance
D4	$D4(x_1, x_2) = arccos[1 - fracD3^2(x_1, x_2)2]$	Geodesic metric

How do you choose your coefficient?

Asymetrical Q-mode

Presence/Absence descriptors or ordered classes

1. Metric coefficients: Coefficient of community **S7** and variants **S10, S11**.
2. Semi-metric coefficients: Variantes of the coefficient of community **S8, S9, S13, S14**.
3. Non-metric coefficient **S12**.
4. Probabilistic coefficient **S27**.

Qualitative or semiquantitative descriptors

1. Raw abundances: 1.1 Non - probabilistic coefficient 1.1.1: No Standarization by object: Same different for either abundant or rare species **S17, S18**. 1.1.2: Standarization by object: Differences of abundant species contribute more than differences between rare species **S21, D15, D16, D17**