$$D = \begin{bmatrix} 0 & \delta_{12}^2 & \delta_{13}^2 & \delta_{14}^2 \\ \delta_{21}^2 & 0 & \delta_{23}^2 & \delta_{24}^2 \\ \delta_{31}^2 & \delta_{32}^2 & 0 & \delta_{34}^2 \\ \delta_{41}^2 & \delta_{42}^2 & \delta_{43}^2 & 0 \end{bmatrix}$$

$$D = \begin{bmatrix} 0 & \delta_{12}^2 & \delta_{13}^2 & \delta_{14}^2 \\ \delta_{21}^2 & 0 & \delta_{23}^2 & \delta_{24}^2 \\ \delta_{31}^2 & \delta_{32}^2 & 0 & \delta_{34}^2 \\ \delta_{41}^2 & \delta_{42}^2 & \delta_{43}^2 & 0 \end{bmatrix}$$

$$SSD_{Total}$$

$$SSD_{Within}$$

SSD_{Among}

$$SSD_{Among} \quad D = \begin{bmatrix} 0 & \delta_{12}^2 & \delta_{13}^2 & \delta_{14}^2 \\ \delta_{21}^2 & 0 & \delta_{23}^2 & \delta_{24}^2 \\ \delta_{31}^2 & \delta_{32}^2 & 0 & \delta_{34}^2 \\ \delta_{41}^2 & \delta_{42}^2 & \delta_{43}^2 & 0 \end{bmatrix}$$

$$SSD_{Within} \quad D = \begin{bmatrix} 0 & \delta_{12}^2 & \delta_{13}^2 & \delta_{14}^2 \\ \delta_{21}^2 & 0 & \delta_{23}^2 & \delta_{24}^2 \\ \delta_{31}^2 & \delta_{32}^2 & 0 & \delta_{34}^2 \\ \delta_{41}^2 & \delta_{42}^2 & \delta_{43}^2 & 0 \end{bmatrix}$$

$$SSD_{Total} \quad D = \begin{bmatrix} 0 & \delta_{12}^2 & \delta_{13}^2 & \delta_{14}^2 \\ \delta_{21}^2 & 0 & \delta_{23}^2 & \delta_{24}^2 \\ \delta_{31}^2 & \delta_{32}^2 & 0 & \delta_{34}^2 \\ \delta_{41}^2 & \delta_{42}^2 & \delta_{43}^2 & 0 \end{bmatrix}$$

Phi_{ST}

Parameters such as F_{ST}, and its colleagues, are derived based upon population-genetic assumptions.

AMOVA (and its identical parameter Θ) is derived from normal statistical theory, independent of any evolutionary basis.