

StAMOVA

Extension of AMOVA variance decomposition designed to extract spatial/ecological correlates from data prior to estimating ϕ_{ST} .

Removing Correlates

Continuous and categorical data can be converted into matrix covariates from which you can condition AMOVA distance on prior to analysis.

Table 1 Stepwise analysis of molecular variance table for G external variables, J maternal individuals

<i>Source</i>	<i>df</i>	<i>SS</i>	<i>E[MS]</i>
External	G	$\text{tr}[\mathbf{H}_E(\mathbf{Y}\mathbf{Y}')]$	
Among strata	$J-G-1$	$\text{tr}[\mathbf{H}_M(\mathbf{R}\mathbf{R}')]$	$\sigma_W^2 + K\sigma_A^2$
Error	$N-J$	$\text{tr}[(\mathbf{I}-\mathbf{H}_M)(\mathbf{R}\mathbf{R}')]$	σ_W^2
Total	$N-1$	$\text{tr}[(\mathbf{Y}\mathbf{Y}')]$	