

Individuals

0 2 2 1 1 0 1
0 2 1 0 1
2 ...

Loci

X

$$E[\textcolor{blue}{x}_{ij} | T] = 2p_i^T,$$

$$\text{Var}(\textcolor{blue}{x}_{ij} | T) = 2p_i^T (1 - p_i^T) (1 + f_j^T),$$

$$\text{Cov}(\textcolor{blue}{x}_{ij}, \textcolor{blue}{x}_{ik} | T) = 4p_i^T (1 - p_i^T) \varphi_{jk}^T,$$

$$(1 - F_{\text{IT}}) = (1 - F_{\text{IS}})(1 - F_{\text{ST}}),$$

$$(1 - f_j^T) = (1 - f_j^{L_j}) (1 - f_{L_j}^T),$$

$$F_{\text{ST}} = \sum_{j=1}^n w_j f_{L_j}^T,$$

$$\hat{p}_i^T = \frac{1}{2} \sum_{j=1}^n w_j \textcolor{blue}{x}_{ij},$$

$$\hat{\varphi}_{jk}^{T,\text{new}} \xrightarrow[m \rightarrow \infty]{\text{a.s.}} \varphi_{jk}^T.$$

E, Var, Cov, round, sgn,

logit, $\xrightarrow[m \rightarrow \infty]{\text{a.s.}}$, $\xrightarrow[n \rightarrow \infty]{}$,

$\xrightarrow[n,m \rightarrow \infty]{\text{a.s.}}$, $\textcolor{blue}{x}_{ij}$, $\textcolor{blue}{x}_i$, $\textcolor{blue}{X}$, p_i^T , \hat{p}_i^T ,

F_{ST} , F_{IT} , F_{IS} , f_B^A , f_j^T , $f_j^{L_j}$,

$f_{L_j}^T$, φ_{jk}^T , Φ^T , $\varphi_{jk}^{L_{jk}}$, $f_{L_{jk}}^T$,

$f_{L_j}^{L_{jk}}$, R_{ST} , ϕ_{ST} , G_{ST} , G'_{ST} ,

$\hat{F}_{\text{ST},i}^{\text{sample}}$, \hat{F}_{ST} , $\hat{F}_{\text{ST}}^{\text{indep}}$, $\hat{F}_{\text{ST}}^{\text{WC}}$,

$\hat{F}_{\text{ST}}^{\text{Hudson}}$, $\hat{F}_{\text{ST}}^{\text{HudsonK}}$, $\hat{\varphi}_{jk}^T$,

$\hat{\Phi}^T$, \hat{f}_j^T , $\hat{\varphi}_{jk}^{T,\text{std}}$, $\hat{f}_j^{T,\text{std}}$,

$\hat{f}_j^{T,\text{stdII}}$, $\hat{f}_j^{T,\text{stdIII}}$, $\hat{F}_{\text{ST}}^{\text{std}}$, \hat{F}'_{ST} ,

$\hat{F}_{\text{ST}}^{\text{II}}$, $\hat{\varphi}_{jk}^{T,\text{new}}$, $\hat{\varphi}_{\min}^{T,\text{new}}$,

$\hat{f}_j^{T,\text{new}}$, $\hat{F}_{\text{ST}}^{\text{new}}$, $\hat{\varphi}_{jk}^{L_{jk},\text{beagle}}$,

$\hat{f}_j^{L_j,\text{beagle}}$, $\overline{p(1-p)}^T$, A_{jk} ,

\hat{A}_{\min} , SRMSD $_p$, AUC $_{\text{PR}}$.