

Loci

Individuals

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

x

$$E[x_{ij}|T] = 2p_i^T,$$

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

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

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

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

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

$$\hat{p}_i^T = \frac{1}{2} \sum_{j=1}^n w_j x_{ij},$$

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

E, Var, Cov,

round, sgn, logit,

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

$$x_{ij}, p_i^T, \hat{p}_i^T, F_{ST}, F_{IT}, F_{IS},$$

$$f_B^A, f_j^T, f_j^{L_j}, f_{L_j}^T, \varphi_{jk}^T, \varphi_{jk}^{L_{jk}},$$

$$f_{L_{jk}}^T, f_{L_j}^{L_{jk}}, R_{ST}, \phi_{ST}, G_{ST},$$

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

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

$$\hat{f}_j^{T,\text{std}}, \hat{f}_j^{T,\text{stdII}}, \hat{f}_j^{T,\text{stdIII}},$$

$$\hat{F}_{ST}^{\text{std}}, \hat{F}_{ST}^{\text{'}}, \hat{F}_{ST}^{\text{''}},$$

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

$$\hat{\varphi}_{jk}^{L_{jk},\text{beagle}}, \hat{f}_j^{L_j,\text{beagle}},$$

$$\xrightarrow{p(1-p)^T}, A_{jk}, \hat{A}_{\min}.$$