

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,

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

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

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

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

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

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

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

$$\hat{F}_{ST}^{\text{std}}, \hat{F}_{ST}^{\text{'}}, \hat{F}_{ST}^{\text{''}}, \hat{\varphi}_{jk}^{T, \text{new}},$$

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

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

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