

Individuals

| | | | | | | |
|---|-----|---|---|---|---|---|
| 0 | 2 | 2 | 1 | 1 | 0 | 1 |
| 0 | 2 | 1 | 0 | 1 | | |
| 2 | ... | | | | | |

X

$$E[\mathbf{x}_{ij} | T] = 2\mathbf{p}_i^T,$$

$$\text{Var}(\mathbf{x}_{ij} | T) = 2\mathbf{p}_i^T (1 - \mathbf{p}_i^T) (1 + \mathbf{f}_j^T),$$

$$\text{Cov}(\mathbf{x}_{ij}, \mathbf{x}_{ik} | T) = 4\mathbf{p}_i^T (1 - \mathbf{p}_i^T) \varphi_{jk}^T,$$

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

$$(1 - \mathbf{f}_j^T) = (1 - \mathbf{f}_j^{L_j}) (1 - \mathbf{f}_{L_j}^T),$$

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

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

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

E, Var, Cov, round, sgn,

logit, $\xrightarrow[m \rightarrow \infty]{\text{a.s.}}$, $\xrightarrow[n \rightarrow \infty]{\text{a.s.}}$, $\xrightarrow[n, m \rightarrow \infty]{\text{a.s.}}$, \mathbf{x}_{ij} , \mathbf{x}_i , **X**, \mathbf{p}_i^T , $\hat{\mathbf{p}}_i^T$, F_{ST} , F_{IT} , F_{IS} , \mathbf{f}_B^A , \mathbf{f}_j^T , $\mathbf{f}_j^{L_j}$, $\mathbf{f}_{L_j}^T$, φ_{jk}^T , Φ^T , $\varphi_{jk}^{L_{jk}}$, $\mathbf{f}_{L_{jk}}^T$, $\mathbf{f}_{L_j}^{L_{jk}}$, R_{ST} , ϕ_{ST} , G_{ST} , G'_{ST} , $\hat{F}_{ST, i}^{\text{sample}}$, \hat{F}_{ST} , $\hat{F}_{ST}^{\text{indep}}$, \hat{F}_{ST}^{WC} , $\hat{F}_{ST}^{\text{Hudson}}$, $\hat{F}_{ST}^{\text{HudsonK}}$, $\hat{\varphi}_{jk}^T$, $\hat{\Phi}^T$, $\hat{\mathbf{f}}_j^T$, $\hat{\varphi}_{jk}^{T, \text{std}}$, $\hat{\mathbf{f}}_j^{T, \text{std}}$, $\hat{\mathbf{f}}_j^{T, \text{stdII}}$, $\hat{\mathbf{f}}_j^{T, \text{stdIII}}$, $\hat{F}_{ST}^{\text{std}}$, \hat{F}'_{ST} , \hat{F}_{ST}'' , $\hat{\varphi}_{jk}^{T, \text{new}}$, $\hat{\varphi}_{\min}^{T, \text{new}}$, $\hat{\mathbf{f}}_j^{T, \text{new}}$, $\hat{F}_{ST}^{\text{new}}$, $\hat{\varphi}_{jk}^{L_{jk}, \text{beagle}}$, $\hat{\mathbf{f}}_j^{L_{jk}, \text{beagle}}$, $\overline{p(1-p)}^T$, A_{jk} , \hat{A}_{\min} , SRMSD_p , AUC_{PR} .