Notes

Jinliang Yang

July 23, 2015

Infer mom's genotype by JRI

We have obs. mom and obs. (selfed) kids. We want to know $P(G|\theta)$, and $P(G|\theta) \propto P(\theta|G) \times P(G)$, where θ is observed data. This consists of observed genotypes (G') of both mom and kids. So: $P(G|\theta) \propto \left(\prod\limits_{i=1}^{k} P(G'_k|G) \right) \times P(G'_{mom}|G) \times P(G)$ This function is to impute mom's genotype from a progeny array of k kids at a single locus. inferred_mom=1 -> 00, 2->01, 3->11

- H: heterozygote sites of a given window size (10, 20)

$P(H|\theta) \propto P(\theta|H) \times P(H)$

$P(H|\theta) \propto \left(\prod\limits_{i=1}^{k} P(H'_k|H) \right) \times P(H'_{mom}|H) \times P(H)$