## 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  $\theta$  is observed data. This consists of observed genotypes (G') of both mom and kids. So:  $P(G|\theta) \propto \left(\prod_{i=1}^k P(G'_k|G)\right) \times P(G'_{mom}|G) \times P(G)$  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

## A Bayesian-based Statistical model

$$Y_i = u + \sum_{j=1}^n a_j X_{ij} + e_i$$

## Spacing

$$f(x) = x^{2} + 3x + 2$$

$$f(x) = x^{2} + 3x + 2$$