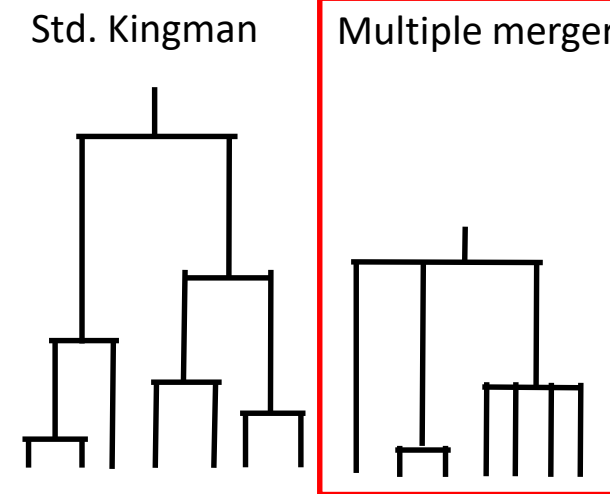
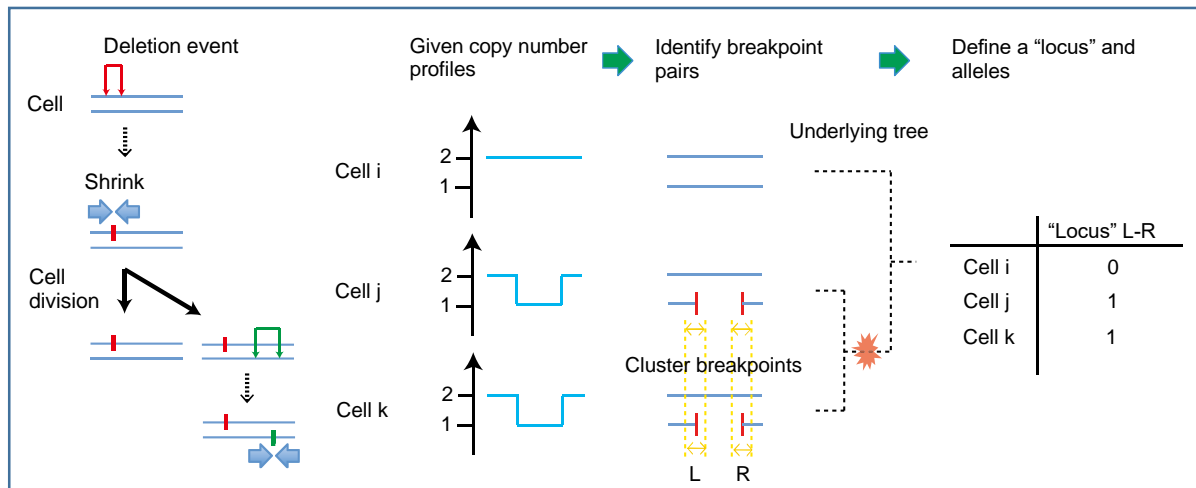


Time-backward simulation model

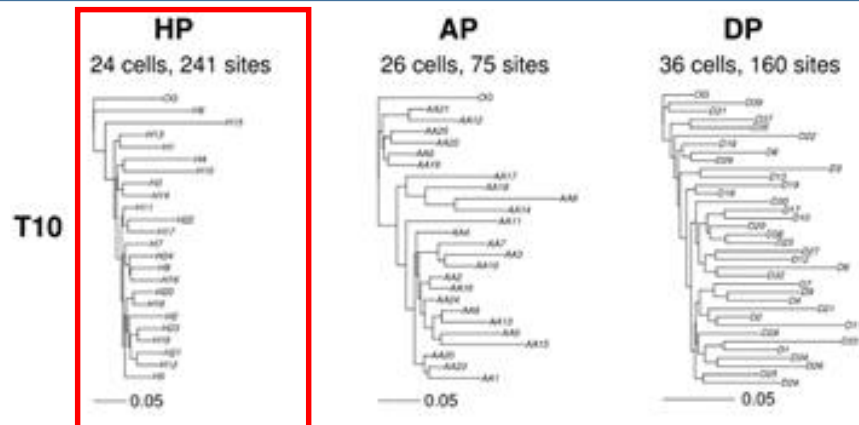
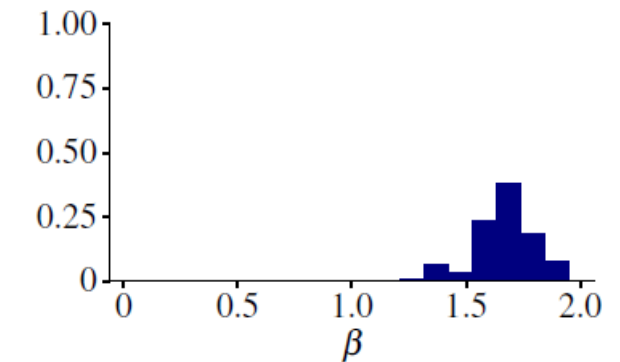
- Coalescent model
 - Multiple-merger coalescent
 - Single-cell sequencing data
 - Approximate Bayesian Computation (ABC)

(Kato et al, 2017, Roy Soc. Open Sci.)



$$\lambda_{k,m} = \int_0^1 x^{m-2} (1-x)^{k-m} \left\{ \frac{1}{\Gamma(2-\beta)\Gamma(\beta)} x^{1-\beta} (1-x)^{\beta-1} \right\} dx$$

$$N(t) = N_0 e^{-\alpha t}$$



(A) Sweepstake reproduction

