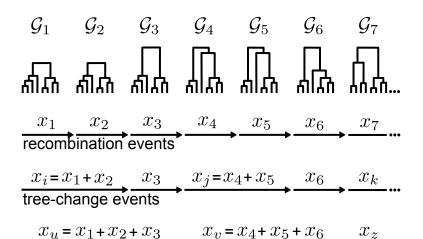
(A) Proposed ARG for a genome region



(B) Calculate MS-SMC waiting distance rate parameters (λ) for each event given a parameterized demographic model:

Trees between events

Calculated rates of events

Interval lengths of events

$$G_r = [\mathcal{G}_1, \mathcal{G}_2, \mathcal{G}_3, ...]$$

$$\Lambda_r = [\lambda_{r1}, \lambda_{r2}, \lambda_{r3}, ...]$$

$$X_r = [x_1, x_2, x_3, \dots]$$

$$G_q = [\mathcal{G}_1, \mathcal{G}_3, \mathcal{G}_4, \ldots]$$

$$\Lambda_g = [\lambda_{g1}, \lambda_{g3}, \lambda_{g4}, ...]$$

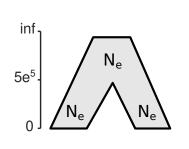
$$X_g = [x_i, x_3, x_j, \dots]$$

$$G_t = [\mathcal{G}_1, \mathcal{G}_4, \mathcal{G}_7, ...]$$

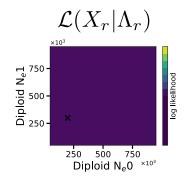
$$\Lambda_t = [\lambda_{t1}, \lambda_{t4}, \lambda_{t7}, ...]$$

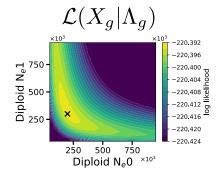
$$X_t = [x_u, x_v, x_z, \dots]$$

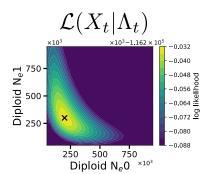
(C) Likelihood surface of demographic model parameters inferred from waiting distances (MS-SMC):

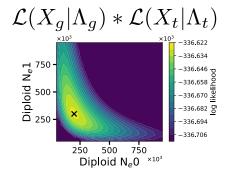


topology-change events









(D) Likelihood surface of demographic model parameters inferred from coalescent waiting times (MSC):

