(a)

Diffusive Mutations Regime

Multiple Mutations Regime

$N = 10^9$

$v = 5.31 \times 10^{-6}$
$v = 5.31 \times 10^{-5}$
$v = 5.31 \times 10^{-4}$

Origin-fixation Regime

(b)

$v = 5.3 \times 10^{-5}$

$N = 10^7$
$N = 10^9$
$N = 10^{11}$

Selection coefficient

Beneficial mutation rate