

Table S11: Root mean squared error (RMSE) and mean absolute error (MAE) values when predicting selection coefficient ( $s$ ), initial frequency ( $f$ ), and time of selection ( $T_{\text{sel}}$ ) for CEU populations when trained and tested with simulations using recombination rate drawn from an exponential distribution with mean  $10^{-8}$  truncated at three times the mean per site per generation or rate drawn from an empirical human recombination map. The values show RMSE and MAE measured between standardized log-scaled predicted and actual parameters.

Recombination rate	RMSE( $s$ )	RMSE( $f$ )	RMSE( $T_{\text{sel}}$ )	MAE( $s$ )	MAE( $f$ )	MAE( $T_{\text{sel}}$ )
$10^{-8}$	0.88	1.02	0.69	0.68	0.82	0.51
Human map	0.96	1.11	0.84	0.83	0.93	0.68