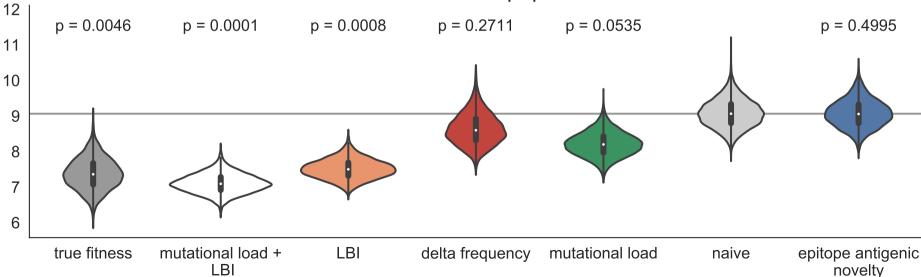
Validation of simulated populations p = 0.0191p < 0.0001p = 0.0010p = 0.0093p = 0.5591mutational load + LBI delta frequency mutational load naive epitope antigenic **LBI** novelty Model Test of simulated populations p = 0.0008p = 0.2711p = 0.0535p = 0.4995



Model

p < 0.0001

true fitness

Bootstrapped distance to future (AAs)

Bootstrapped distance to future (AAs)

8

6