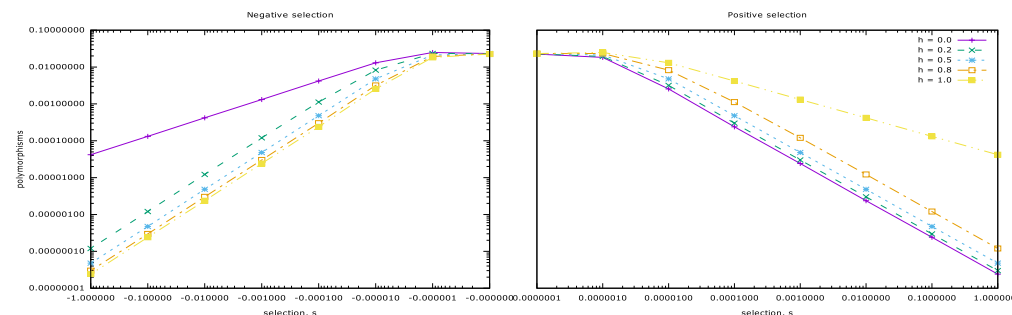


Modelling polymorphisms with selection and dominance

Polymorphisms for fixed dominance

Nomenclature

s: Selection coefficient
h: Dominance coefficient
x: Allele frequency
N: Effective population
U: Mutation rate



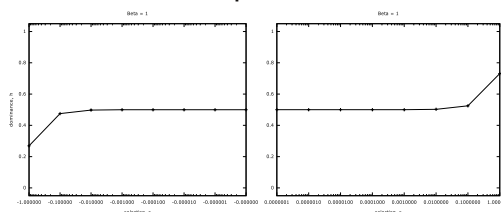
Polymorphisms

With random allele frequency x , it is given by $E[2x(1-x)]$ where $f(x | s, h)$ is proportional to $\exp(2Ns(x^2 + 2hx(1-x))) * x^{4NU-1} (1-x)^{4NU-1}$.

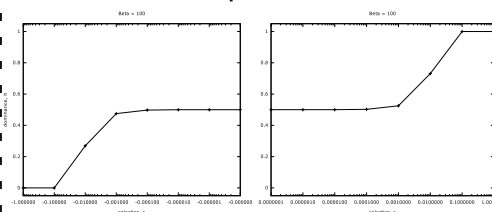
Sigmoidal dominance

$$h(s) = 1 / (1 + e^{(-\beta * s)})$$

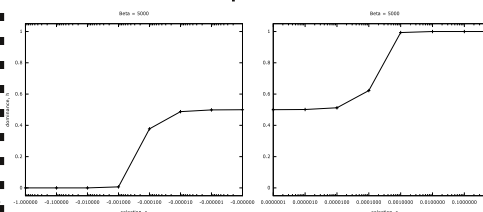
Interpolation



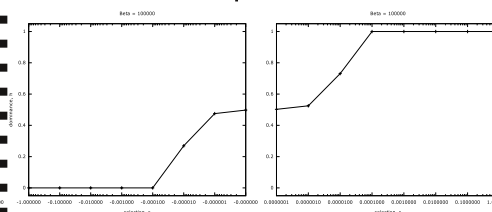
Interpolation



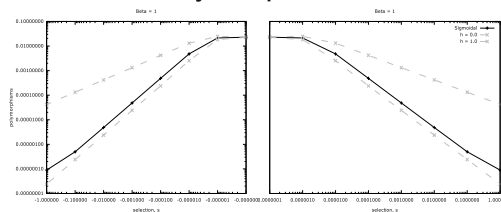
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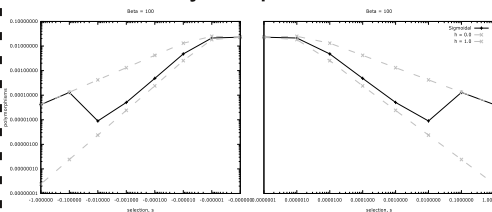
Interpolation



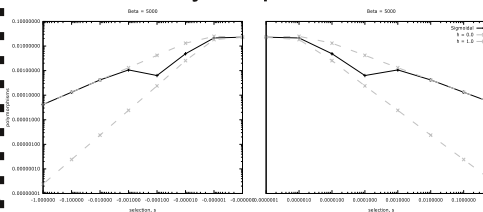
Polymorphisms



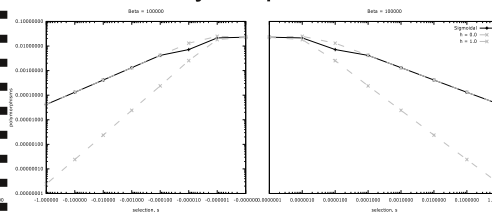
Polymorphisms



Polymorphisms



Polymorphisms



beta = 1

beta = 100

beta = 5000

beta = 100000