Shannon transform of the MP law vs. Isotropic approximation

Figure S1  Convergence of the Shannon transform to the isotropic approximation

The Shannon transform of the M-P law \( \nu_{H,M}(x) \) with \( \lambda_{H,M} \sim MP(\beta, \zeta) \), see eq. A1.3) is compared to the isotropic approximation \( \nu(x) \approx \log(1 + \bar{x} x) \) where \( \bar{x} = \beta \zeta = 2\bar{s}/n \) where \( \bar{s} = -E(s) \) is the mean (deleterious) effect of mutations. The parameters are indicated on the graph, with \( n = 5 \) and recalling that \( \beta = p/n \) and \( \zeta = 2\bar{s}/p \). The isotropic approximation proves accurate over a wide range of parameter values.