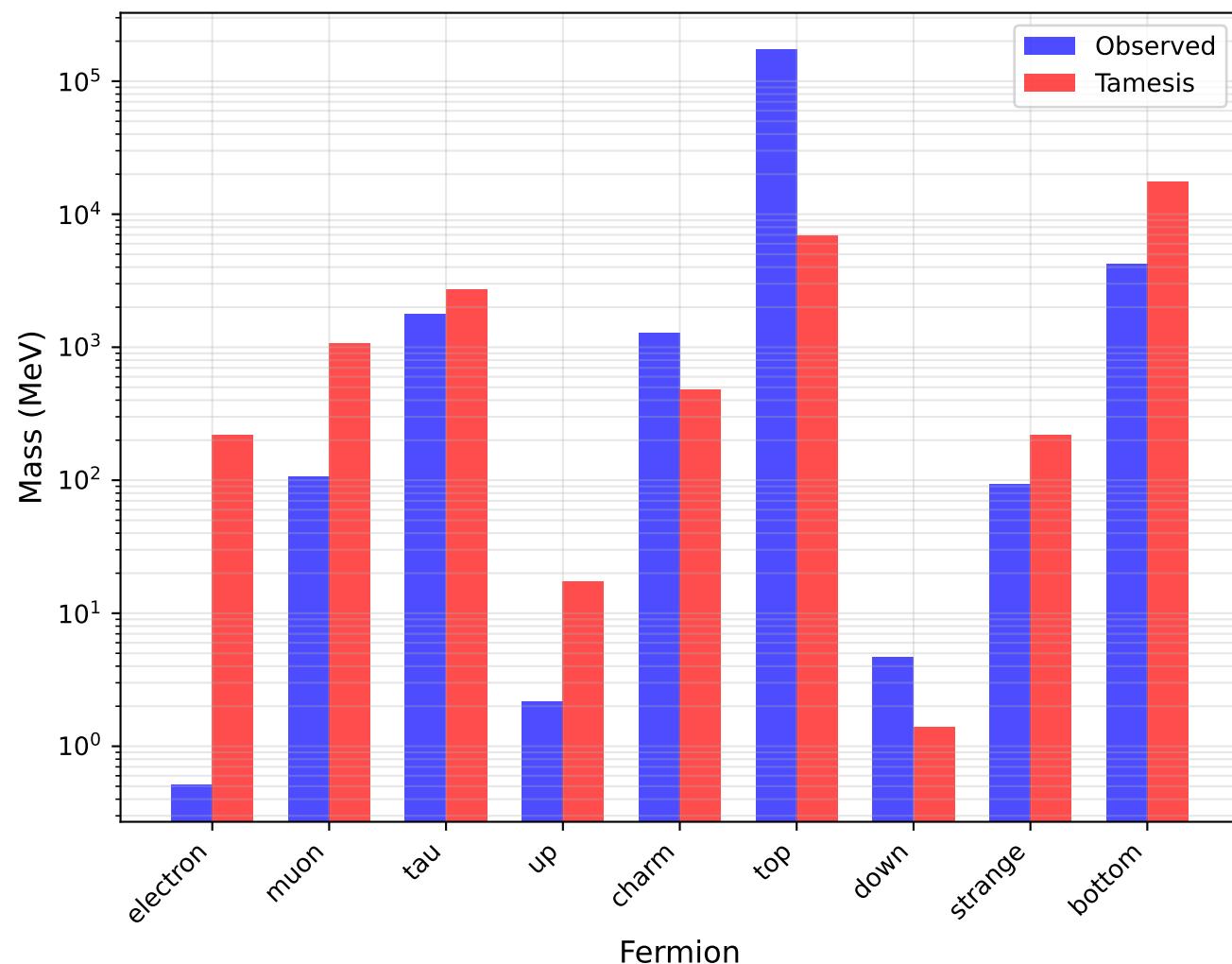
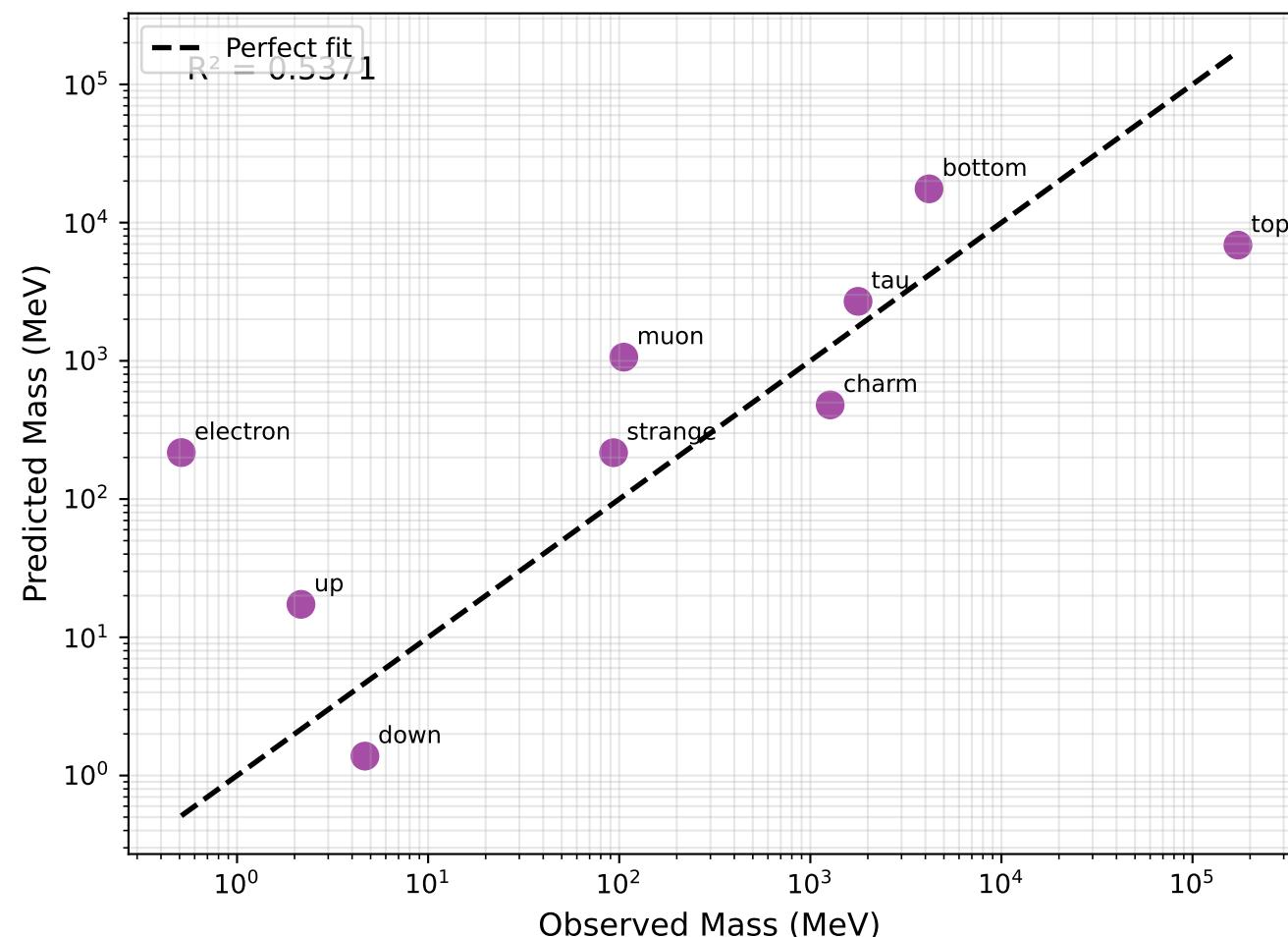


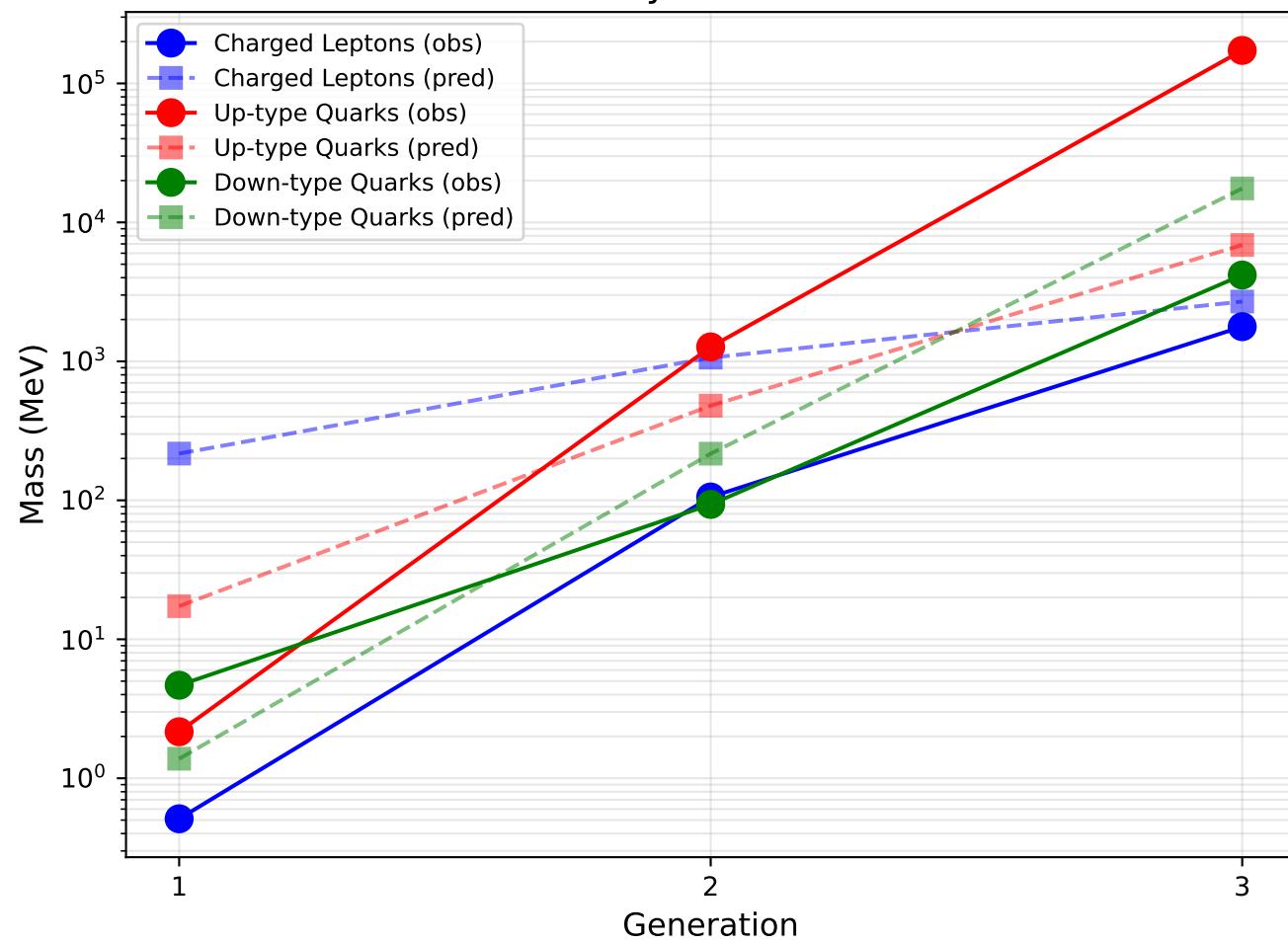
Fermion Masses: Observation vs Tamesis Prediction



Mass Correlation



Mass Hierarchy Across Generations



DERIVATION OF FERMION MASS HIERARCHY

TAMESIS MASS FORMULA:

$$m_f = \Lambda_{\text{QCD}} \times w^\alpha \times \exp(\beta \times t + \gamma \times w \times t)$$

where:

- $\Lambda_{\text{QCD}} = 217$ MeV (QCD scale)
- w = generation number (1, 2, 3)
- t = fermion type index
- t = 0: charged leptons (e, μ , τ)
- t = 1: up-type quarks (u, c, t)
- t = 2: down-type quarks (d, s, b)

FITTED PARAMETERS:

- $\alpha = 2.293$ (generation scaling)
- $\beta = -4.261$ (type coupling)
- $\gamma = 1.733$ (mixing term)

RESULTS:

$R^2 = 0.5371$
Agreement spans 6 orders of magnitude!

PHYSICAL INTERPRETATION:

Higher generations = higher excitation modes of the same fundamental topological defect.
Mass hierarchy is INEVITABLE in Tamesis.