

## Strong Isospin Breaking Contribution to the Neutron-Proton Mass Difference

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Abstract: I present the results of a calculation of the mass difference between the neutron and proton due to the difference in light-quark masses. A partially-quenched calculation was done using domain-wall valence quarks on the isospin symmetric staggered MILC lattices. Partially-quenched heavy baryon chiral perturbation theory was used to extrapolate to the physical point. The MILC calculation of  $M_u/M_d$  was required as an additional input.