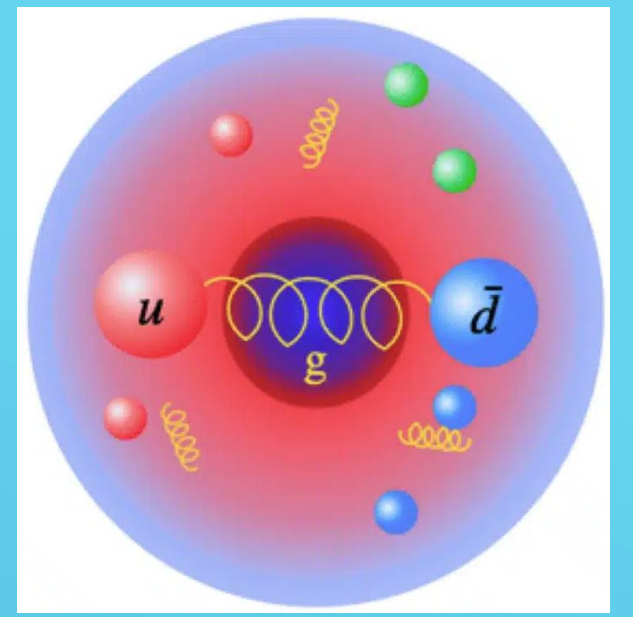


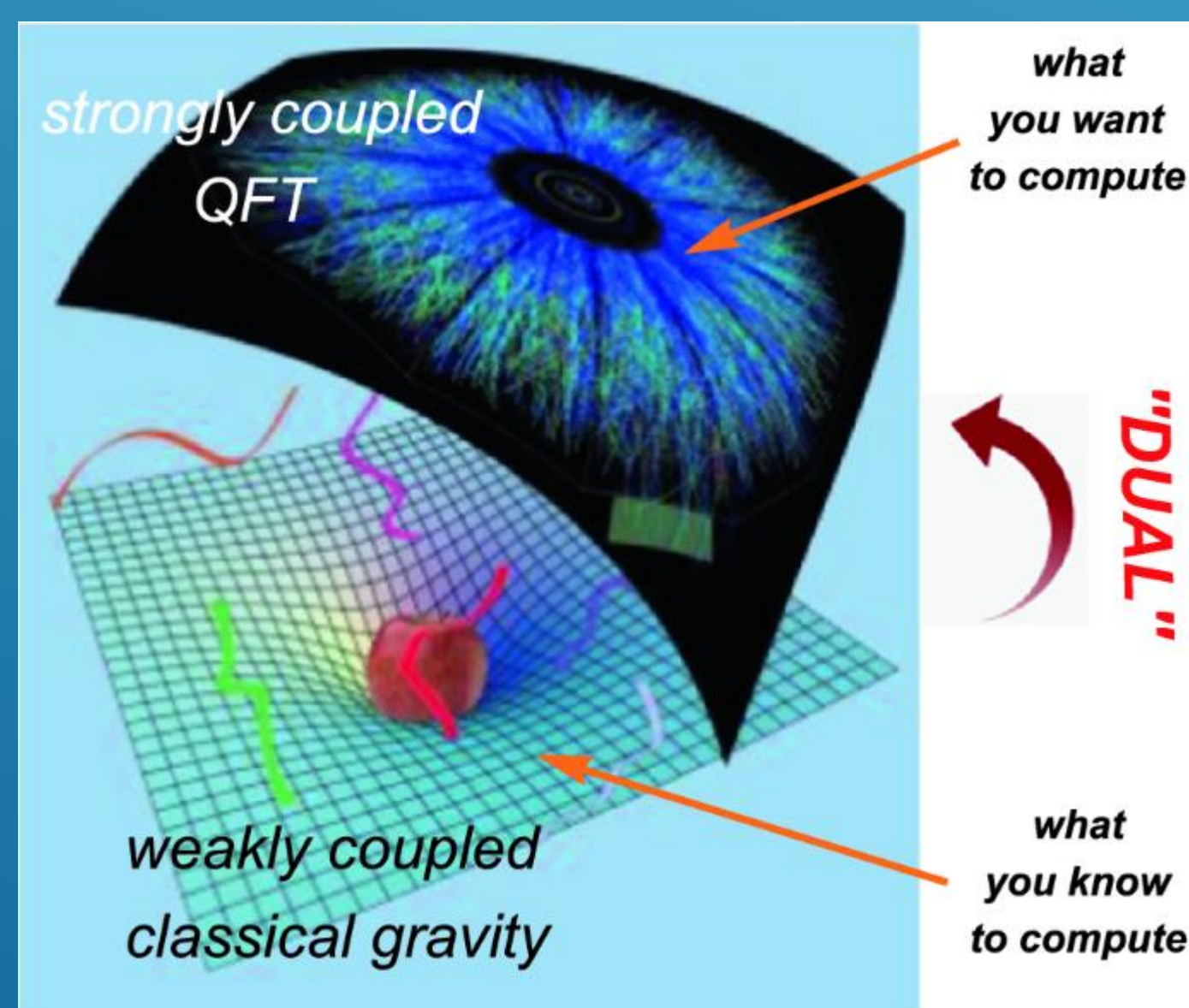


Particle Phenomenology

« Is the pion the hologram of a vibrating string? »

Ruben Sandapen, Acadia University, Canada

Inspired by light-front holography, we compute the pion mass, charge radius, decay constant, electromagnetic form factor and electromagnetic transition form factor. To do so, we model the longitudinal quark dynamics using potentials due to 't Hooft and to Li and Vary. We also explore the strong degeneracy between these two potentials and conclude by noting that one scenario that accords well with the data also maps onto an equation previously noted by Vegh that describes the dynamics of a four-segmented string in three-dimensional anti-de Sitter spacetime.



April 18, 2025
Amphi Dirac, 11 am