

Title: Differential Geometry of Thermal "M-QCD" - Geometry Meets Data

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Abstract: With the assumption that the fundamental theory of all interactions in the universe and hence even strong/nuclear forces is the eleven-dimensional "M theory", I briefly review how the differential geometry of internal six- and seven-dimensional spaces based on "conifolds" relevant to "compactifying" M theory down to the perceivable 3+1-dimensional spacetime, can be shown to be useful to determining lattice-compatible glueball spectroscopy, PDG-compatible meson spectroscopy, phenomenologically compatible LECs of EFTs (ChPT) in holographic phenomenology, as well as lattice-compatible bulk-to-shear viscosity ratio of thermal QCD-like theories across the confinement-deconfinement transition in holographic condensed matter physics.