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# The Isoscalar Mesons and Exotic States in Light Front Holographic QCD

*Monday, 15 July 2019 12:30 (30 minutes)*

In this talk a quantitative analysis of the isoscalar bosonic states will be shown in the framework of supersymmetric light front holographic QCD. The spectroscopy of the $\eta$ and $h$ mesons can be well described if one additional mass parameter – which corresponds to the hard breaking of chiral $U(1)$ symmetry in standard QCD – is introduced. The mass difference of the $\eta$ and $\eta'$ isoscalar mesons is then determined by the strange quark mass content of the $\eta'$. The theory also predicts the existence of isoscalar tetraquarks which are bound states of diquarks and anti-diquarks. The candidates for these exotic isoscalar tetraquarks are identified. In particular, the $f_0(1500)$ is identified as isoscalar tetraquark; the predicted mass value 1.52 GeV agrees with the measured experimental value within the model uncertainties.

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