

XVth Quark Confinement and the Hadron Spectrum



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Lattice study of spectrum of the low-lying chimera baryons in $Sp(4)$ gauge theory

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$Sp(4)$ gauge theory coupled to fermions in the fundamental and two-index antisymmetric representations is a viable candidate for the ultra-violet completion of composite Higgs models. This theory facilitates the generation of the top-quark mass through the partial-compositeness mechanism, where the chimera baryons (spin-1/2 bound states of fermions in two different representations) serve as the top partner. This talk presents a lattice investigation of the low-lying chimera baryons in this theory.

Primary author: LIN, C.-J. David

Co-authors: Prof. LUCINI, Biagio (Swansea University); Dr VADACCHINO, Davide (University of Plymouth); Prof. HONG, Deog Ki (Pusan National University); Dr BENNETT, Ed (Swansea University); Mr HSIAO, Ho (National Yang Ming Chiao Tung University); Dr LEE, Jong-Wan (Institute for Basic Science, Daejeong); Prof. PIALI, Maurizio (Swansea University)

Presenter: LIN, C.-J. David

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