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Entanglement suppression and emergent symmetry

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Spin-flavor symmetries in hadronic physics have been thought to follow from large- N . However, lattice data suggests an $SU(16)$ spin-flavor symmetry for baryons in the $SU(3)$ limit that does not have a large- N explanation. We discuss how the enhanced symmetry corresponds to suppressed entanglement in scattering processes, and conjecture that the strong interactions may be dynamically suppressing entanglement. One can imagine additional lattice tests of this hypothesis, and other places unexpected symmetries might arise.

Authors: KAPLAN, David; SAVAGE, Martin (Institute for Nuclear Theory); Ms KLCO, Natalie (University of Washington); Prof. BEANE, Silas (University of Washington)

Presenter: KAPLAN, David

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