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# Entanglement and Symmetry in Low-energy QCD

*Saturday 11 November 2023 16:30 (15 minutes)*

Quantum information science offers a fresh perspective to think about quantum field theory. In this talk, I look at the connection between entanglement and symmetries in low-energy scattering of spin-$\frac{1}{2}$ baryons. The baryons transform as an octet under the $SU(3)$ flavor symmetry and their interactions below the pion threshold are described by contact operators in an effective field theory (EFT) of QCD. I will show that successive entanglement minimization in $SU(3)$-symmetric scattering channels are correlated with increasingly large emergent symmetries in the EFT.

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