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## Perspectives on the (sub)structure of multi-quark hadrons in QCD

Experimental and theoretical efforts continue to uncover surprisingly rich structures in the QCD spectrum. In the heavy sector alone, for example, among the about 62 (LHCb'22) new hadron states observed, many are 4- or 5-quark states. These states are phenomenologically difficult to explain and often contradictory or competing statements are made depending on how QCD interactions are modelled.

In this talk I will present current efforts to resolve this impasse by performing QCD calculations without approximation using advanced lattice QCD techniques. Focussing on doubly heavy tetraquarks, recent lattice efforts will be reviewed and paths towards understanding the substructure of these states sketched out. To illustrate I will give details on the possibility of understanding deeply bound doubly heavy tetraquarks in terms of diquark effective degrees of freedom and how the properties of these diquarks can be determined on the lattice.

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