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Séminaire de Physique Nucléaire Théorique

Molecular hadrons from the EFT perspective

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The discovery of a plethora of new heavy hadrons in experimental facilities during the last few years calls for their theoretical interpretation. While many of them are standard three-quark baryons and quark-antiquark mesons, others do not fit this explanation and are suspected to be exotic. A few might be ”molecular states”, i.e. composite hadrons that are bound states of two hadrons and thus analogous to the deuteron in nuclear physics. Here I will present a brief overview of the most promising molecular candidates and the issues related to them from the effective field theory perspective. In particular I will address the problem of how can we know whether a state is molecular, what are probable molecular interpretations of a few of these states and what concrete predictions can be made about them.

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