

Talk 1 - Maxim Mai (University of Bern, Switzerland): Approaches to low-energy QCD in a cross talk of EFTs and Lattice QCD

Tuesday 28 October 2025 09:30 (1h 30m)

Robust accessing of low-energy QCD is necessary to understand the mass generation and emergence of spectrum of excited hadrons in nature. So far two approaches have crystallized to this goal, both, however, having own strengths and weaknesses. A combination of both approaches provides a path to salvage the former, and mitigate the latter.

Indeed, this synergetic approach provides a path to better understanding the low-energy structure of QCD by not only comparing the first-principles predictions with experimental observations but even going beyond this, allowing to study experimentally not accessible regimes. In my lectures, I will show basic principles behind these approaches and some hands-on applications thereof.