

Lattice 2024



Contribution ID: 491

Type: **Talk**

Hadron Spectroscopy from lattice QCD: current status and future

Saturday, 3 August 2024 09:00 (45 minutes)

From the early days of lattice QCD, hadron spectroscopy has been an integral part of it. With improved control over statistical and systematic errors, ground states of many hadrons are now very well determined by lattice QCD calculations. Significant progress has also been made in excited state calculations. These advancements, along with developments in amplitude analysis formalisms, have greatly enhanced the study of multi-hadron scatterings. Lattice QCD calculations are making excellent contributions to the study of exotic hadrons and can help decipher their structures, potentially aiding in the discovery of many new hadrons in the future. However, lattice QCD-based studies of nuclear physics have not yet reached the same level of precision, and much progress is still needed. In this talk, I will provide an overview of the current status of hadron spectroscopy, including exotic hadrons, and discuss future prospects and implications.

Primary author: MATHUR, Nilmani (Tata Institute of Fundamental Research)

Presenter: MATHUR, Nilmani (Tata Institute of Fundamental Research)

Session Classification: Plenary

Track Classification: Plenary - by invitation only