## RUB

## PHYSIKALISCHES KOLLOQUIUM

## SOMMERSEMESTER 2024

Montag, 22.04.2024, 12 Uhr c.t.

## TETRAQUARKS, PENTAQUARKS, AND A LEGACY OF THE THREE-BODY PROBLEM

Antrittsvorlesung im Rahmen des Physikalischen Kolloquiums

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Strong interaction continues to pose fundamental challenges in the domain of particle physics. Recent developments in hadron spectroscopy have uncovered an array of exotic hadrons, including pentaguarks, tetraguarks, as well as candidates for hybrid states and glueballs, all of which demand meticulous classification and understanding. To make progress in comprehending the inner workings of these hadronic objects, it is crucial to refine methods used in correlating observable phenomena with the intrinsic properties of particle interactions. This seminar aims to provide an update on the latest works within the world of exotic hadrons, placing a particular emphasis on the implementation of model-independent techniques rooted in scattering theory for data analysis purposes. I will highlight a fascinating connection between the analysis of the dynamics of the first doubly charm tetraquark and the classical threebody problem, a topic that continues to captivate and inspire investigation to this day.



Die Einführung erfolgt durch Ilya Eremin

Die Fakultät lädt alle Interessierten herzlich ein. Die Veranstaltung findet im Hörsaal HNB statt.





Physik und Astronomie from matter to materials