



EINLADUNG

im Rahmen des Teilchenphysikseminars

zum Vortrag

von

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über

***“Dispersive analysis of pion-nucleon scattering
and the pion-nucleon sigma term”***

Abstract:

A precise understanding of low-energy pion-nucleon interactions is central for many areas in nuclear and hadronic physics, ranging from the scalar couplings of the nucleon to the long-range part of two-pion-exchange potentials and three-nucleon forces in Chiral Effective Field Theory. We present a calculation that combines the general principles of analyticity, unitarity, and crossing symmetry with modern high-precision data of hadronic atoms, leading to a phenomenological description of the pion-nucleon amplitude with unprecedented rigor and accuracy. Consequences for the pion-nucleon sigma-term, the electromagnetic nucleon form factor and the matching to Chiral Perturbation Theory will be also discussed.

Zeit: Dienstag, 28.11.2017, 16:15

Ort: Erwin Schrödinger-Hörsaal, Boltzmannngasse 5, 5. Stock

gez.: A. Hoang, H. Neufeld