PHYSIKALISCHES KOLLOQUIUM

Sommersemester 2025

Das Kolloquium findet (soweit nicht anders angegeben) **jeweils montags um 14:15 Uhr in Präsenz im Röntgen-Hörsaal** des Physikalischen Instituts, Hubland Campus Süd, Universität Würzburg **und online via Zoom statt**.
Zugangsdaten siehe https://www.physik.uni-wuerzburg.de/aktuelles/veranstaltungen-aus-der-physik/physikalisches-kolloquium/

23.06.2025

Prof. Dr. Dmitri Kharzeev
Stony Brook University & Brookhaven National Lab., Department of Physics and Astronomy

When Physics meets Quantum Information

Abstract

The interplay between physics and quantum information drives profound advancements in our understanding of nature, reshaping fundamental concepts and enabling groundbreaking technologies. In this colloquium, we will explore how quantum information and physics intersect, influencing and transforming each other.

I will discuss the role of entanglement in quantum matter (both in and out of equilibrium), quantum computation as a powerful tool for simulating complex physical systems, and the impact of information-theoretic principles on nuclear, high-energy, and condensed matter physics. By bridging the gap between these fields, we unlock new avenues for discovery and pave the way for technological breakthroughs.

Für die Dozentinnen bzw. Dozenten der Fakultät

Prof. Dr. Hankiewicz, Prof. Dr. Hinkov, Dr. Meyer, Dr. Feichtner, Hr. Baumbach