Aktuelle Veranstaltungen

Kolloquium

Thema: The Quest for the Axion

Datum: 29.04.19

Uhrzeit: 16:15

Ort: H6

Vortragender: Dr. Andreas Ringwald

DESY Hamburg

Inhalt: The axion arises in the course of an elegant explanation why time reversal invariance has not been observed to date in strong interactions. In addition, it is a very good candidate for dark matter in the universe. There are new, relatively small experiments around the globe, which are hunting the axion and complement the search for physics beyond the Standard Model at the Large Hadron Collider.

Ansprechpartner: D. Bödeker / TR211

Kolloquium Mathematische Physik

Thema: tba

Datum: 05.07.19

Uhrzeit: 16:15

Ort: V4-119
Seminar Hochenergiephysik

Thema: Lattice thermodynamics from fluctuation theorems

Datum: 14.05.19

Ort: D6-135

Vortragender: Marco Panero

Univ of Turin and INFN, Turin

I present a lattice calculation of the equation of state in SU(3) Yang-Mills theory by a simulation algorithm based on Jarzynski's equality. The latter is an exact statistical-mechanics theorem, that relates the free-energy difference between two equilibrium ensembles of a statistical system to the exponential average of the work done on the system, when it is driven out of equilibrium. After comparing the results with other recent lattice studies of Yang-Mills thermodynamics, some possible generalizations are discussed.

Ansprechpartner: Ch. Schmidt
Seminar Mathematische Physik

Thema: Rate of Convergence to the Circular Law

Datum: 17.01.19

Uhrzeit: 17:15

Ort: D5-153

Vortragender: Jonas Jalowy

Bielefeld University

It is well known that the (complex) empirical spectral distribution of a non-Hermitian random matrix with i.i.d. entries will converge to the uniform distribution on the complex disc as the size of the matrix tends to infinity. In this talk, we investigate the rate of convergence to the Circular Law in terms of a uniform, 2-dimensional Kolmogorov-like distance. The optimal rate of convergence is determined by the Ginibre ensemble and is given by $n^{-1/2}$. I will present a smoothing inequality for complex measures that quantitatively relates the Kolmogorov-like distance to the concentration of logarithmic potentials. Combining it with results from local circular laws, it is applied to prove nearly optimal rate of convergence to the circular law with overwhelming probability. Furthermore I will relate the result to other distances, present an analogue for the empirical root measure of Weyl random polynomials with independent coefficients and discuss a possible generalization for products of independent matrices. The talk is based on joint work with Friedrich Götze.

Ansprechpartner: Gernot Akemann
Seminar AG Zufallsmatrizen

Thema: tba

Datum: 24.04.19

Uhrzeit: 15:00

Ort: V3-201

Vortragender: Ivan Parra

Universität Bielefeld

Inhalt:

Ansprechpartner: Gernot Akemann