Aktuelle Veranstaltungen

Kolloquium

Thema:  
**Der neue Bielefelder GPU-Cluster**

Datum:  
20.05.19

Uhrzeit:  
16:00

Ort:  
H6

Vortragende:  
Gert Aarts, Swagato Mukherjee and Kevin Tierney

Inhalt:

Ansprechpartner:  
**F. Karsch**

Kolloquium Mathematische Physik

Thema:  
*tba*

Datum:  
05.07.19

Uhrzeit:  
16:15

Ort:  
V4-119

Vortragende:  
Elena Pulvirenti (Univ. Bonn) & Dirk Hundertmark (KIT)
Seminar Hochenergiephysik

Thema: Lattice thermodynamics from fluctuation theorems

Datum: 14.05.19

Uhrzeit: 14:15

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.

Seminar Kondensierte Materie

Thema: Einführung in Python

Datum: 16.05.19

Uhrzeit: 14:15

Ort: D5-153
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.
Thema: tba

Datum: 23.05.19

Uhrzeit: 16:15

Ort: V3-201

Vortragender: Nick Simm

University of Sussex

Inhalt:

Ansprechpartner: Gernot Akemann