universität ulm

Physikalisches Kolloquium — Physics Colloquium

Einladung — **Invitation**

Monday, 10 July 2023

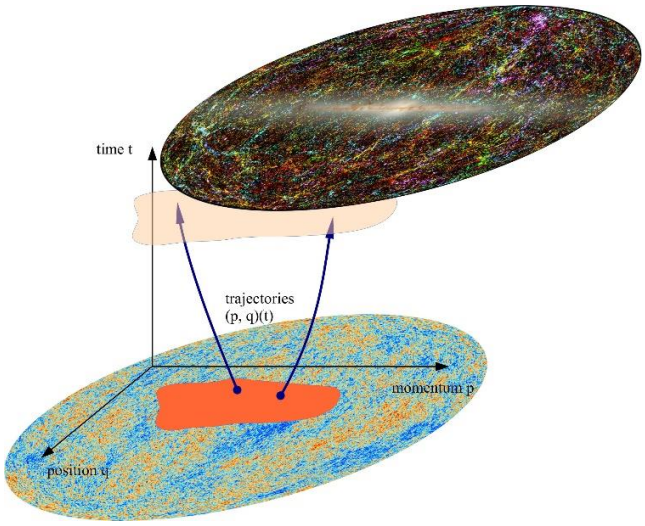
Lecture Hall N24/H13, at 16:15 hrs
Coffee and cookies will be served in front of the lecture hall from 16:00 hrs

On the track of universality in cosmic structures

Prof. Dr. Matthias Bartelmann

Institute for Theoretical Physics
University of Heidelberg
https://www.thphys.uni-heidelberg.de/~bartelmann/

Our Universe is permeated by pronounced structures on a very wide range of scales. We see their ancestors imprinted in the cosmic microwave background, and their fully developed status now, 14 billion years later. Understanding their non-linear evolution is a challenging task, for which a new theory has recently been developed based on kinetic field theory. In its framework, the evolution of cosmic structures can be linked to first principles, and their statistics can be accurately described. I will summarize the cosmological application of kinetic field theory, describe some of its results, and discuss how it can be used to approach universality in cosmic structures.



Host: Prof. Dr. Ute Kaiser, Electron Microscopy Group of Materials Science

Organisation: Prof. Dr. Jens Michaelis, Institute of Biophysics, jens.michaelis@uni-ulm.de, +49-731-50-23050