

Physikalisches Kolloquium

Rainer Sommer, DESY Zeuthen

»Lattice simulations of the strong interactions«

Einführung: D. Zeppenfeld

QCD is the (fundamental) theory of strong interactions in hadrons and nuclei. It is believed to be a perfect, mathematically consistent, theory describing phenomena at all length scales. However, the most interesting phenomena such as the confinement of quarks into hadrons, are not - at least as yet - amenable to an analytic analysis.

Lattice QCD, formulated on a space-time grid, provides at the same time a rigorous definition of the theory and a formulation where many properties can be systematically computed by numerical "simulations" on super-computers. After explaining the basic idea, I review the challenges and selected achievements of such numerical investigations of the theory of the strong interactions.

Freitag, 23.04.2010, 17 Uhr c.t.,

KIT, Campus Süd,

Otto-Lehmann-Hörsaal, Physik-Flachbau (Geb. 30.22).

Anschließend Nachsitzung im Gastdozentenhaus „Heinrich Hertz“