



SFB Colloquium

TIME:

8 Jan 2008, 16:00 - 19:00

LOCATION:

HU-Berlin
Invalidenstraße 42
Nordbau, Hörsaal 8
10115 Berlin

PROGRAM:

16:00 - 17:00 **Prof. Matthias Kreck (Universität Bonn)**

Stratifolds and their Gometry

17:00 - 17:30 Coffee Break

17:30 - 18:30 **Prof. Alexander Mielke (WIAS; HU Berlin)**

Multiscale methods for Hamitlonian systems

Many physical system involve several spatial or temporal scales. Often it is desirable to find effective macroscopic models that describe the essential features without resolving the small scales.

In particular we discuss the passage from discrete lattice systems to continuous models. We discuss the well-known fact that macroscopic pulses of microscopically periodic patterns are governed by the nonlinear Schrödinger equation. However, we use a new approach based on the Hamiltonian and lagrangian structures as well as the symmetry invariants.

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