



## SFB-Seminar

### ZEIT:

11.1.2011, 16:00 Uhr - 19:00 Uhr

### ORT:

HU

Institut für Sportwissenschaft  
Philippstr. 13, 10115 Berlin (Mitte)  
Haus 11, Hörsaal 5

### PROGRAMM:

16:00 - 17:00 **Prof. Dr. Roland Friedrich (BMS)**

#### **Kähler manifolds and Hopf Algebras**

In this talk we shall develop a connection between a class of infinite-dimensional Kähler manifolds and certain Hopf algebraic structures that arise naturally in two-dimensional quantum field theories.

In particular these algebras are not only related to Conformal Field Theories on Riemann surfaces but also to classical integrable systems, such as the KP hierarchy.

17:00 - 17:30 Kaffeepause

17:30 - 18:30 **Dr. Alexander Strohmaier (Loughborough)**

#### **Geometry and Topology of Wave Scattering**

I will give a short introduction into scattering theory of classical and quantum waves and its precise mathematical description. I will then explain how geometry and topology can be used to describe scattering at low energies in waveguides and structures that are effectively manifolds with cylindrical ends.

I will present a topological interpretation of the so-called scattering length and estimates of it in terms of quantities from geometric measure theory.

### Kontakt:

Humboldt-Universität zu Berlin . Institut für Mathematik  
SFB 647 . Unter den Linden 6 . 10099 Berlin  
Tel. +49 30 2093 1804 . Fax. +49 30 2093 2727  
sfb647@math.hu-berlin.de

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