SFB Seminartag

ZEIT:
20.6.2005, 14:00 Uhr - 17:00 Uhr

ORT:
Hörsaal ZIB
Takustraße 7
14195 Berlin-Dahlem

PROGRAMM:

14:00 - 15:00 **Prof. Dr. Gerhard Huisken (AEI)**

Geometrische Evolutionsgleichungen: Fragestellungen und Querverbindungen

15:00 - 15:30 Kaffeepause

15:30 - 16:30 **Prof. Dr. Helga Baum**

Holonomy of conformal structures, special conformal geometries and conform-parallel spinors

The holonomy theory of semi-Riemannian manifolds is well-known. Special metric holonomies are related to distinguished geometric structures (such as Kähler, Calabi-Yau, G2,...) and allow us to decide how many parallel spinors exist. In the seminar I will dicuss the same question in conformal geometry. In the first part I will introduce some basics of conformal Cartan geometry which are necessary to define the notion of conformal holonomy. In the second part I will review recent results on the holonomy of Riemannian and of Lorentzian conformal structures. I will explain geometric properties of conformal structure with special holonomy, in particular the relation to Einstein manifolds and to the existence of conform-parallel spinors.

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