

MATHEMATICS SEMINAR
of the
UNIVERSITY OF LUXEMBOURG
in cooperation with the
LUXEMBOURG MATHEMATICAL SOCIETY

November 2009

10 November 2009, at 5 pm

Room B02

Gregor Fels
University of Tübingen

How round is the unit sphere: Tubes in the CR-Geometry

Abstract

After a brief introduction to Cauchy-Riemann geometry we discuss the importance of tube manifolds as testing ground for various geometric phenomena, including certain types of degeneracy. We will also address the classification problem of tube manifolds and its relation to certain associative nilpotent algebras.

17 November 2009, at 2 pm

Room B14

Batu Güneysu
University of Bonn

The Feynman-Kac formula for Schrödinger operators on vector bundles

Abstract

In this talk, I will explain how the Feynman-Kac formula can be generalized to a certain class of Schrödinger-type operators on vector bundles over complete Riemannian manifolds. This class includes nonnegative "potentials" which are locally square integrable.

17 November 2009, at 5 pm

Room B02

Hongxin Guo
Wenzhou University, China

Geometry of gradient Ricci solitons

Abstract

Ricci solitons play a fundamental role in the studies of the Ricci flow. They are solutions which evolve only by diffeomorphisms and scalings and occur at singularity formation and as asymptotic limits of long-time solutions. In this talk, I will report some progress towards the understanding of geometries of gradient Ricci solitons.