

Short Course on Infinite-dimensional Lie groups

By

Prof. Karl-Hermann Neeb

March 23-27-28-29, 2007

**Facultad de Matemáticas
Universidad Complutense de Madrid**

The main purpose of the course is to present some of the main ideas of infinite-dimensional Lie theory, and explain how it differs from the finite dimensional theory. The following topics will be covered:

1. Infinite-dimensional manifolds.
2. Lie theory for locally convex Lie groups.
3. Fundamental theorem for Lie group-valued functions on manifolds.
4. Locally exponential Lie groups.
5. Integrability of infinite dimensional Lie algebras

The Lectures will take place in Room 225, from 16:00 to 17:30h.

**Organized by the UCM Research Group
*Nonlinear Functional Analysis on Banach Spaces***

