

The seminar on differential geometry will continue by                      the following lecture:

**November 12 (10.00, M5)**

**Artur Sergyeyev (SU Opava)**

**Hydrodynamic Integrability: from Symplectic to Contact Geometry**

Abstract:

We begin with a brief introduction to integrable systems in general and a review of known results on the construction of integrable hydrodynamic-type partial differential systems in three independent variables with Lax pairs involving Hamiltonian vector fields. Then we present a generalization of this construction to the case of four independent variables, where Hamiltonian vector fields are replaced by contact ones, and show that this approach gives rise to a large new class of integrable hydrodynamic-type systems.