

Seminář z diferenciální geometrie pokračuje 12.11.2018 od 10:00 v učebně M5

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Hydrodynamic Integrability: from Symplectic to Contact Geometry

Abstrakt:

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.