

*Seminar:* "Geometry&Physics@DFT"

*Location:* DFT seminar room (IFIN-HH),  
(<http://events.theory.nipne.ro/gap/index.php/seminar>)  
(<http://www.nipne.ro/indico/categoryDisplay.py?categId=5>)

*Date:* Monday, 6 October 2014, 1:00 pm

*Title:* **2-cocycles and geodesic equations on Lie groups**

*Speaker:* **Dr. Cornelia Vizman** (UVT, Timisoara)

*Abstract:* In this talk I will investigate several 2-cocycles on Lie algebras of vector fields: the Virasoro cocycle on the Lie algebra of vector fields of the circle, the Lichnerowicz cocycles on the Lie algebra of divergence free vector fields, and the Roger cocycles on the Lie algebra of Hamiltonian vector fields. I will mention their integrability to central extensions of groups of diffeomorphisms, as well as geodesic equations for right invariant Riemannian metrics on these extensions.