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=16)

Date: Friday, 25 April 2014, 11 am

## Title: On the Yang-Baxter Equation

## Speaker: Dr. Florin NICHITA (IMAR, Bucharest)

Abstract: "The Yang-Baxter equation first appeared in theoretical physics, in a paper by C.N. Yang, and in statistical mechanics, in R.J. Baxter's work. Later, it turned out that this equation plays a crucial role in: quantum groups, knot theory, braided categories, analysis of integrable systems, quantum mechanics, non-commutative descent theory, quantum computing, non-commutative geometry etc. The full classification of its solutions is an open problem. Solutions for the Yang-Baxter equations from algebra structures, coalgebra structures, Lie (super)algebras and Boolean algebras are presented. Various aspects of the Yang-Baxter equation related to algebraic structures and some applications are discussed."