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: Friday, 11 July 2014, 11 am

Title: **Quantum and classical connections in modeling atomic, molecular and electrodynamic systems**

Speaker: **Dr. Alexandru POPA** (INFLPR, Magurele)

Abstract: "In a series of papers we presented connections between the Schrodinger and Hamilton-Jacobi equations in the case of stationary atomic and molecular systems and between Klein-Gordon and relativistic Hamilton-Jacobi equations, in the case of the systems composed of electromagnetic fields and particles. In the first case the connection consists in the fact that the geometric elements of the wave described by the Schrodinger equation are solutions of the Hamilton-Jacobi equation, while in the second case the connection results directly, because the Klein-Gordon equation is verified exactly by the wave function associated to the classical motion. These properties have numerous applications in the modeling of atomic, molecular and electrodynamic systems, which where synthetized in two books published by Elsevier."