apoma Laboratory, Magurele-Bucharest

Reports of Activity

M Apostol, PhD, Professor
2006
Quark-gluon plasma, Scattering, **Nuclear Theory** (apoma, MB, 2006), Matter condensation, Theory of liquids, Fluids, Vorticial liquids, Electromagnetism, Positronium disintegration, Neutrino detection, **J. Theor. Phys. 2005-2006** (apoma, MB, 2006).

N Angelescu, PhD, Professor; M Bundaru, PhD
2006
Transport between two Bose reservoirs through a microscopic channel. An exactly-solvable model was put forward and solved, paying special attention to the presence of the Bose-Einstein condensation. The particle flow shows a characteristic dependence on the phase difference.

F D Buzatu, PhD
2006
Latticial fluids, Ising models, Diffusion.

V Barsan, PhD
2006
Magnetic excitations, Spectral functions, Bethe ansatz

L C Cune, PhD
2006
Nanostructures, aggregation of matter, effective potentials, van der Waals equation

C Schiaua
2006
Computations, software, inter-connection, Grids, field theory. Installation, configuration and maintainance of the NIHAM Laboratory GRID site, Magurele-Bucharest, extensively used in ALICE project, CERN, Geneva, cooperation. Co-author of the ALICE project report, J. Phys. G, in print.

D Anghel, PhD
2005
Equivalence between the thermodynamics of fermions and bosons. Fermion condensate. Hydrodynamics of granular systems, phonons in nanoscopic membranes.
2006
Equivalence between Fermi and Bose statistics. Mesoscopic membranes, with disorder, phonons, their heat conduction.

E Cojocaru, PhD
2006
Coupling coefficients for waves in rectangular waveguides, mode coupling, transfer matrix, finite-difference. General input for the design of integrated optics.