



Grupo de Física Matemática
da Universidade de Lisboa

SEMINÁRIO DE FÍSICA-MATEMÁTICA

Dia 29 de Maio de 2009 (sexta-feira), às 14h30m, na Sala A2-25

« **Symmetries of integrable spin chains and structure of their spectra** »

P.P. Kulish

(GFMUL / Steklov Institute of Mathematics, St. Petersburg, Russia)

Abstract

Quantum integrable spin chains usually have an underlying dynamical symmetry algebra. This can be just a Lie algebra, for isotropic models, or a quantum group, for anisotropic spin chains. Since corresponding Hamiltonians commute with global generators of the symmetry algebra, they belong to a centralizer algebra of the symmetry algebra. In many cases these two algebras give multiplicity free decomposition of the state space into irreducible representations of these algebras. As a consequence one gets the structure of the multiplets and degeneracy of the spectra of the Hamiltonians. Examples of the centralizer algebras are: group algebra of the symmetric group, its deformation - Hecke algebra, the Brauer algebra and its deformation - Birman-Wenzl-Murakami algebra.

Local:

COMPLEXO INTERDISCIPLINAR

Av. Prof. Gama Pinto, 2

1649-003 Lisboa, Portugal

