Universidade Federal da Paraíba
Centro de Ciências Exatas e da Natureza
Programa de Pós-Graduação *Stricto Sensu* em Física

Colóquio

"Topological solitons mediated spin-charge conversion effects in conducting polymers"

RESUMO: By mapping a Hubbard-like electronic Hamiltonian (describing a conducting polymer with antiferromagnetic properties in the presence of strong enough electron-phonon interactions) onto the canonical system of two coupled nonlinear Schroedinger equations with U(2) symmetry group, some very nontrivial correlations between topological solitons mediated charge and spin degrees of freedom are obtained, including fractionalization, reentrant like behavior and spin-charge conversion effects.

Prof. Dr. Sergei Sergeenkov
UFPB

10/jul/2015	16h00
Auditório da Pós-Graduação em Física (novo prédio)	