# COMMUNICATIONS IN PHYSICS

ISSN 0868 - 3166

## Published by VIETNAMESE ACADEMY OF SCIENCE AND TECHNOLOGY

Supplement, 2004 Proceedings of 29<sup>th</sup> National Conference of Theoretical Physics

#### Contents

		Page
1.	Le Duc Anh, Hoang Anh Tuan, and Nguyen Toan Thang - Charge Ordering in the Extended Hubbard Model with Electron - phonon Interaction under a Magnetic Field	1 - 5
2.	Nguyen Van Hung, Nguyen Ba Duc, and Le Hai Hung - Anharmonic Interaction Potential and Thermodynamic Effects of FCC Crystals under Influence of Impurity	6 - 12
3.	Do Tran Cat, Ong Phuong Khuong, and Dao Anh Van - Metal-insulator Transition in Quasi- two-dimensional Materials Having Nesting Character	13 - 17
4.	Vu Ngoc Tuoc, Nguyen Van Minh and Doan Nhat Quang - Free-particle Model for Disorder Two Dimensional Electron Gas in a Perpendicular Magnetic Field	18 - 22
5.	Tran Thi Thanh Van and Nguyen Ai Viet - Spin Quantum Computer with a Coupled Semiconductor Quantum Dots in a Controllable Magnetic Field	23 - 28
6.	Do Ngoc Son and Bach Thanh Cong - Polaron Effect in Quantum Dots	29 - 33
7.	Do Van Nam - Modelling 1D-nanometer Device: the Green Function Approach	34 - 39
8.	Nguyen Viet Hung and Nguyen Van Duc - Statistics of Coulomb - blockade Spacing in a Disordered Quantum Dot	40 - 46
9.	Bach Thanh Cong and Phung Thi Thuy Hong - Magnetic Polaron in Colossal Magnetoresistance Perovskites	47 - 51

(See cover 4)

### Supplement, 2004 Proceedings of 29th National Conference of Theoretical Physics

#### Contents

	(Continue cover 1)	
		Page
10.	Doan Tri Dung, Cao Huy Thien, and Tran Thoai Duy Bao - Influence of Detuning on the Condensation Kinetics of Cavity Polaritons	52 - 57
	Le Van Hoang, Le Tran The Duy, Hoang Do Ngoc Tram, Ngo Dinh Nguyen Thach, and Le Thi Ngoc Anh - Exact Solution of Two-dimensional Screened Donor State in a Magnetic Field	58 - 63
	Nguyen Thanh Son and Nguyen Quoc Khanh - Electron and Spin Correlations in Semiconductor Heterostructures: Quantum STLS Theory	64 - 69
	Tran Cong Phong, Luong Van Tung and Nguyen Quang Bau - Parametric Resonance of Acoustic and Optical Phonons in Doped Superlattices	70 - 75
	Phung Thi Thu Ha, Nguyen Anh Ky, and Nguyen Thi Hong Van - Two-parametric Deformation $U_{p,q}[osp(1/2)]$	76 - 79
15.	Vo Thanh Cuong, Nguyen Anh Ky, and Nguyen Thi Hong Van - Two-parametric Deformation $U_{pq}[gl(2/1)]$ as a Quasi-triangular Hopf Superalgebra	80 - 84
16.	Le Trong Tuong, Nguyen Chinh Cuong, Dao Thi Le Thuy, and Ha Huy Bang - The Effect of CP Violation on the Squark Decays into Gauge Bosons	85 - 90
	Ho Quang Quy, Nguyen Manh Thang, and Vu Ngoc Sau - Creating Free Spatial Solution from Gaussian Beam by Kerr Medium	91 - 95
	Nguyen Hoang Quoc, Ngyen Ngoc Ty, Le Van Hoang, and Nguyen Khac Nhap - Algebraic Representation of Many-Particle Coulomb Green Function and Application in Atomic Calculations	96 - 101
19.	Tran Dai Nghiep, Le Van Minh, and Tran Thi Hien Trang - Theory of Energy Transfer Model for the Studying Nuclear Reactions in the Solar-mass Stars	102 - 105
20.	Tran Cong Phong - Numerical Analysis for the Solution of the Euler-lagrange Equation	106 - 111

Address of Editorial Office: Tel: 04 - 9.422825, 70 Tran Hung Dao Str, Hanoi - Vietnam Email: phi-com@isi.ac.vn

PRINTED AT PRINTING WORKSHOP OF SCIENCE AND TECHNOLOGY