

PHHQ XI
August 27-31, 2012
APC, Paris

Scientific Program

Monday		Tuesday		Wednesday		Thursday		Friday	
8h30	Registration		Chair: C. M. Bender		Chair: C. Ciuti		Chair: J. Zinn-Justin		Chair: A. Voros
09h00	Welcome Coffee	09h15	E. M. Graefe <i>Breakdown of adiabatic transfer schemes in the presence of decay or absorption</i>	09h00	A. D. Stone (45 min) plenary <i>Non-Hermitian Maxwell Operators, Lasing, and PT-symmetric scattering</i>	09h00	D. Krejcirik (45 min) plenary <i>Non-Hermitian operators in quantum physics</i>	09h00	B. Helffer (45 min) plenary <i>On some non self-adjoint problems in superconductivity theory</i>
09h45	Welcome	09h45	A. Tanaka <i>Exceptional points behind eigenspace and eigenvalue anholonomies of bound states</i>	09h45	H. Schomerus <i>Effects of nonuniform strain on PT-symmetric photonic crystals</i>	09h45	J-P. Antoine <i>PIP spaces, metric operators and generalized hermiticity</i>	09h45	F. H. Szafraniec <i>From Krein to S-spaces: a short step</i>
10h00	C. M. Bender (45 min) plenary <i>Introduction to PT quantum mechanics</i>	10h15	S. Garmon <i>Bound state influence on long-time power law decay in open quantum systems</i>	10h15	S. Rotter <i>Exceptional points in open and closed gain-loss structures</i>	10h15	R. Schubert <i>Non-hermitian propagation of coherent states</i>	10h15	P. Shanley <i>Spectral and nodal properties of a quasi-exactly solvable sextic anharmonic oscillator</i>
10h45	D. C. Brody <i>Mixed-state dynamics for PT-symmetric quantum systems</i>	10h45	Coffee break	10h45	Coffee break	10h45	Coffee break	10h45	Coffee break
11h15	D. Hook <i>Universal behaviour in higher derivative theories with $x^2(ix)^4$ potentials</i>	11h15	Chair: A. D. Stone N. Hatano <i>Complex eigenvalue problem of the Hamiltonian and the Liouvillian of an open quantum dot system</i>	11h15	Chair: G. Wunner P. Ambichl <i>Delay times and beam-like scattering states in PT-symmetric scattering systems</i>	11h15	Chair: B. Helffer C. Trapani <i>Weak and generalized Weyl form of the commutation relations for unbounded operators</i>	11h15	Chair: J-P. Antoine J. Zinn-Justin (45 min) plenary <i>The quantum Hamiltonian with imaginary cubic potential</i>
11h45	H. F. Jones <i>WKB for PT-symmetric Sturm-Liouville problems</i>	11h45	W. D. Heiss <i>The Physics of exceptional points</i>	11h45	K. G. Makris <i>Multimoded PT-symmetric optical structures</i>	11h45	A. Voros <i>On the analytical solvability of (polynomial) 1D Schrödinger equations</i>		
12h15	U. Guenther <i>Two PT symmetry topics</i>	12h15	POSTER SESSION (continued)	12h15	Free	12h15	F. Bagarello <i>Deformations of canonical (anti-) commutation relations, and applications to quantum mechanics</i>	12h00	O. Panella <i>Pseudo-Hermitian interaction in Dirac equation</i>
12h45	Lunch	12h45	Lunch	12h45	Lunch	12h45	Lunch	12h30	Lunch
14h00	Chair: H. F. Jones G. Levai <i>Solvable PT-symmetric potentials beyond the shape-invariant class</i>	14h00	Chair: D. Krejcirik A. Mostafazadeh <i>Pseudo-Hermitian quantum systems defined by an unbounded metric operator</i>	14h00		14h00	Chair: S. Rotter Y. Joglekar <i>Universal chirality in PT symmetric rings and lattices</i>	14h00	Chair: F. H. Szafraniec M. Tater <i>On the spectrum of a magnetic chain graph</i>
14h30	A. Sokolov <i>Linear and non-linear supersymmetry for non-Hermitian matrix Hamiltonians</i>	14h30	P. D. Mannheim <i>PT symmetry as a necessary and sufficient condition for unitary time evolution</i>	14h30		14h30	C. Lafargue <i>Semi-classical physics and diffraction in micro-Lego-lasers</i>	14h30	R. Novak <i>The Pauli equation with complex boundary conditions</i>
15h00	M. Plyushchay <i>Exotic supersymmetric structures of PT-symmetric quantum finite-qao systems</i>	15h00	M. Znojil <i>Quasi-Hermitian theory of quantum catastrophes</i>	15h00		15h00	A. Regensburger <i>Experimental PT-symmetry breaking in a large-scale optical fiber network</i>	15h00	R. Lombard <i>Energy-dependent potentials</i>
15h30	B. P. Mandal <i>Complex classical mechanics of a QES system</i>	15h30	G. Wunner <i>Bose-Einstein condensates in PT symmetric double wells</i>	15h30		15h30	S. A. Reyes <i>Landau-Zener-Stückelberg interferometry in PT-symmetric optical waveguides</i>	15h30	General Discussion and Closing Session
16h00	Coffee break	16h00	Coffee break	16h00	Coffee break	16h00	Coffee break	16h00	Farewell Coffee
16h30	Chair: W. D. Heiss Q. Wang <i>Time-dependent PT-symmetric quantum mechanics</i>	16h30	Chair: C. Trapani D. Bermudez <i>Non-hermitian Hamiltonians and Painlevé IV equation with real parameters</i>	16h30		16h30	Chair: U. Guenther P. K. Ghosh <i>Topological insulators & non-hermitian quantum systems</i>	16h30	
17h00	F. Kleefeld <i>Deriving non-Hermitian quantum theory from covariance and the correspondence principle</i>	17h00	B. Midya <i>Quasi-Hermitian Hamiltonians associated with exceptional orthogonal polynomials</i>	17h00		17h00	M. Castagnino and S. Fortin <i>Non-unitary evolutions and non-Hermitian Hamiltonians in decoherence of closed systems</i>	17h00	
17h30	M. Gianfreda <i>Nonuniqueness of the C operator in PT-symmetric quantum mechanics</i>	17h30	S. Rostamzadeh <i>Perturbative analysis of spectral singularities</i>	17h30		17h30	M. Bentaiba <i>Coherent states of non-hermitian Hamiltonian</i>	17h30	
18h00		18h00	A. Diaf <i>The variational perturbation method applied to a family of anharmonic complex-PT potentials</i>	18h00		18h00	A. Ghatak <i>Entangled quantum state discrimination using pseudo-Hermitian System</i>	18h00	
18h30	Welcome Cocktail	20h00		20h00	Cruise&Banquet				

Posters			
Chair: H. Schomerus			
B. Berntson	S. Dey	A. Mazouz	J. Toulouse
Observation of PT phase transition in a simple mechanical system	Squeezed coherent states for noncommutative spaces with minimal length uncertainty relations	Feynman-Kleinert method applied to a complex PT-Potential	Pseudo-Hermitian eigenvalue equations in linear-response electronic-structure theory

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