

Institute of Physics Publishing

Quantum Optics III

Journal of Physics: Conference Series Vol. 84

November 27-30, 2006
Pucón, Chile

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571
www.proceedings.com

ISBN: 978-1-60560-259-2

Some format issues inherent in the e-media version may also appear in this print version.

Copyright (2006) by the Institute of Physics Publishing.

All rights reserved.

For permission requests, please contact the Institute of Physics Publishing at the address below.

Institute of Physics Publishing
Dirac House, Temple Back
Bristol BS1 6BE UK

Tel +44 (0)117 929 7481
Fax +44 (0)117 929 4318

Institute of Physics Publishing

Quantum Optics III
2006

TABLE OF CONTENTS

Quantum State Discrimination and Selected Applications	1
<i>János A Bergou</i>	
Quantum State Preparation Using Multi-level-atom Optics.....	19
<i>Th Busch, K Deasy, S Nic Chormaic</i>	
Entanglement and Quantum Correlations in the Optical Parametric Oscillator Above Threshold.....	26
<i>Katiúscia N Cassemiro, Alessandro S Villar, Paulo Valente, Marcelo Martinelli, Paulo Nussenzveig</i>	
Bistability and Self-oscillations Effects in a Polariton-laser Semiconductor Microcavity	34
<i>E A Cotta, F M Matinaga</i>	
Continuous Photodetection Model: Quantum Jumps Engineering and Hints for Experimental Verification.....	42
<i>A V Dodonov, S S Mizrahi, V V Dodonov</i>	
Dynamics of Two-qubit Entanglement in a Self-interacting Spin-bath	56
<i>Francesca Fassiolli Olsen, Alexandra Olaya-Castro, Neil F Johnson</i>	
Diffraction Effects in Entanglement of Two Distant Atoms.....	63
<i>Z Ficek, S Natali</i>	
Cavity-QED-based Entangled Photon Pair Gun.....	73
<i>R García-Maraver, K Eckert, R Corbalán, J Mompart</i>	
Quantum Optical Properties of the Radiation Field in the Dicke Model.....	85
<i>T C Jarrett, A Olaya-Castro, N F Johnson</i>	
Detecting Entanglement Through Correlations Between Local Observables.....	92
<i>Christian Kothe, Isabel Sainz, Gunnar Björk</i>	
Entanglement Evolution of Bipartite mn-dimensional Systems	97
<i>F Lastra, G Romero, C E López, M França Santos, J C Retamal</i>	
State Determination for Composite Systems of Two Spatial Qubits.....	103
<i>G Lima, F A Torres-Ruiz, L Neves, A Delgado, C Saavedra, S Pádua</i>	
Concurrence in the Inhomogeneous Tavis-Cummings Model.....	114
<i>C E López, F Lastra, G Romero, J C Retamal</i>	
The Role of Degeneracy in the Analogy Between Continuous Variable and Spin 1/2 Systems	119
<i>J L Lucio-M</i>	
Total Quantum Zeno Effect Beyond Zeno Time.....	125
<i>D Mundarain, M Orszag, J Stephany</i>	
Gouy Phase and Matter Waves.....	134
<i>I G da Paz, M C Nemes, J G Peixoto de Faria</i>	

Quantum Evolution by Discrete Measurements	139
<i>L Roa, M L Ladrón de Guevara, A Delgado, G Olivares-Rentería, A B Klimov</i>	
Quantum Measurements Without Schrödinger Cat States.....	147
<i>D Spehner, F Haake</i>	
Does an Onlooker Stop an Evolving Quantum System?	167
<i>P E Toschek</i>	
Nonclassicality and Entanglement: Observable Conditions.....	179
<i>W Vogel, E Shchukin</i>	
Classicality of Atom-atom Correlations in Weakly Interacting Condensed Bose Gases.....	190
<i>S Wallentowitz</i>	
Generation, Concentration and Purification for Ionic Entangled States.....	197
<i>Ming Yang, Zhuo-Liang Cao</i>	
Author Index	