

Progress in Nonequilibrium Greens Functions IV 2009

Journal of Physics: Conference Series Volume 220

**Glasgow, United Kingdom
17-21 August 2009**

**ISBN: 978-1-61738-580-3
ISSN: 1742-6588**

Printed from e-media with permission by:

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



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

Copyright© (202;) by the Institute of Physics
All rights reserved.

Printed by Curran Associates, Inc. (2010)

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

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

Phone: 44 1 17 929 7481
Fax: 44 1 17 920 0979

techtracking@iop.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

PLASMAS, EXCITONS, BARYONS

012001: Structural Properties of Warm Dense Matter	1
<i>D. O. Gericke, K. Wünsch, A. Grinenko, J. Vorberger</i>	
012002: Energy and Temperature Relaxation Described by Nonequilibrium Green's Functions	13
<i>J. Vorberger, D. O. Gericke, Th. Bornath, M. Schlanges</i>	
012003: Dynamics of Strongly Correlated Ions in a Partially Ionized Quantum Plasma	22
<i>P. Ludwig, M. Bonitz, H. Köhler, J. W. Dufty</i>	
012004: BEC–BCS Transition in Excitonic Systems	35
<i>D. Kremp, D. Semkat, K. Henneberger</i>	
012005: Mott Transition in Electron–Hole Plasmas	48
<i>D. Semkat, F. Richter, D. Kremp, G. Manzke, W.-D. Kraeft, K. Henneberger</i>	
012006: The Photon Green's Function for Bounded Media: Splitting Property and Nonequilibrium Radiation Laws	58
<i>F. Richter, D. Semkat, K. Henneberger</i>	
012007: Coherent Quasiparticle Approximation (cQPA) and Nonlocal Coherence	68
<i>Matti Herranen, Kimmo Kainulainen, Pyry M. Rauhala</i>	

QUANTUM TRANSPORT

012008: Modeling Transient Aspects of Coherence-Driven Electron Transport	83
<i>A. Prociuk, H. Phillips, B. D. Dunietz</i>	
012009: Dopants and Roughness Induced Resonances in Thin Si Nanowire Transistors: A Self-Consistent NEGF-Poisson Study	102
<i>A. Martinez, J. R. Barker, N. Seoane, A. R. Brown, A. Asenov</i>	
012010: Ab Initio Vibrations in Nonequilibrium Nanowires	116
<i>A. P. Jauho, M. Engelund, T. Markussen, M. Brandbyge</i>	
012011: Unified Theory of Double-Time Quantum Transport and Quantum Diffusion	133
<i>P. Kleinert</i>	
012012: Time-Dependent Quantum Transport with Superconducting Leads	142
<i>G. Stefanucci, Enrico Perfetto, Michele Cini</i>	

FINITE SYSTEMS AND QUANTUM TRANSPORT

012013: Quantum Breathing Mode of Interacting Particles in Harmonic Traps	151
<i>Sebastian Bauch, David Hochstuhl, Karsten Balzer, M. Bonitz</i>	
012014: Transport Through a Vibrating Quantum Dot: Polaronic Effects	161
<i>T. Koch, J. Loos, A. Alvermann, A. R. Bishop, H. Fehske</i>	
012015: Open Quantum Dots in Graphene: Scaling Relativistic Pointer States	170
<i>D. K. Ferry, L. Huang, R. Yang, Y.-C. Lai, R. Akis</i>	
012016: Artificial Damping in the Kadanoff-Baym Dynamics of Small Hubbard Chains	184
<i>M. Puig von Friesen, C. Verdozzi, C.-O. Almbladh</i>	
012017: Kadanoff-Baym Approach to Time-Dependent Quantum Transport in AC and DC Fields	199
<i>Petri Myöhänen, Adrian Stan, G. Stefanucci, R. van Leeuwen</i>	
012018: Real-Time Switching Between Multiple Steady-States in Quantum Transport	215
<i>A.-M. Uimonen, E. Khosravi, G. Stefanucci, S. Kurth, R. van Leeuwen, E. K. U. Gross</i>	

NUMERICAL CONCEPTS

012019: Multiconfigurational Time-Dependent Hartree-Fock Calculations for Photoionization of One-Dimensional Helium	225
<i>David Hochstuhl, Sebastian Bauch, M. Bonitz</i>	

012020: Finite Elements and the Discrete Variable Representation in Nonequilibrium Green's Function Calculations. Atomic and Molecular Models	235
<i>Karsten Balzer, Sebastian Bauch, M. Bonitz</i>	
012021: Quantum Transport Through a Quantum Dot: Combining the Scattering-States Numerical Renormalization Group with Nonequilibrium Green Functions	247
<i>Frithjof B. Anders, Sebastian Schmitt</i>	
012022: Calculating Green Functions from Finite Systems	262
<i>Peter Schmitteckert</i>	
012023: Analytical Calculation of the Green's Function and Drude Weight for a Correlated Fermion-Boson System	281
<i>A. Alvermann, D. M. Edwards, H. Fehske</i>	
Author Index	