

# **14th International Conference on Transport in Interacting Disordered Systems 2011**

**(TIDS-14)**

**Journal of Physics: Conference Series Volume 376**

**Acre, Israel  
5-8 September 2011**

**ISBN: 978-1-62276-810-3  
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© (2011) by the Institute of Physics  
All rights reserved.

Printed by Curran Associates, Inc. (2013)

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](mailto: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](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

## **The Superconductor-Insulator transition and metal insulator transition**

012001 [Emergent granularity and pseudogap near the superconductor-insulator transition](#) N Trivedi, Y L Loh, K Bouadim and M Randeria 1

012002 [Cooper pair islanding model of insulating nanohoneycomb films](#) S M Hollen and J M Valles Jr. 12

012003 [Wonderful life at weak Coulomb interaction: increasing of superconducting/superfluid transition temperature by disorder](#) V E Kravtsov 22

012004 [Comparative Study of the Magnetic Susceptibility of n-Ge near the Insulator–Metal Phase Transition by Means of ESR and SQUID](#) A I Veinger, A G Zabrodskii, T L Makarova, T V Tisnek, S I Goloshchapov and P V Semenikhin 34

## **Electron Glass and Coulomb glass**

012005 [Ageing and relaxation times in disordered insulators](#) T Grenet, J Delahaye and M C Cheynet 40

012006 [Quantum Coulomb gap](#) M Pino, A M Somoza and M Ortuño 48

012007 [Numerical studies of relaxation in Electron Glasses](#) M Ortuño and A M Somoza 55

012008 [Screening and conductance relaxations in insulating granular aluminium thin films](#) J Delahaye and T Grenet 62

012009 [Elementary excitations and avalanches in the Coulomb glass](#) M Palassini and M Goethe 68

## **Hopping conductivity**

012010 [Hopping Conductivity Enhanced by Microwave Radiation](#) Z Ovadyahu 74

012011 [Electric field dependence of charge-carrier hopping transport at large carrier concentrations in disordered organic solids: Meyer-Neldel and Gill energies](#) I I Fishchuk, A Kadashchuk, M Ullah, H Sitter, N S Sariciftci and H Bässler 80

## **Anderson Localization**

012012 [Extension of Anderson's Localization Theory to Interacting Systems](#) M Pollak 86

012013 [Anderson localization in atomic mixtures](#) K Ziegler and O Fialko 91

012014 [The destruction of the virtual Anderson transition in a narrow impurity band of doped quantum well structures](#) N V Agrinskaya, V I Kozub and D S Poloskin 97

## **Magnetotransport**

012015 [Angular and Temperature-related Specific Features of the Interaction between Light and Heavy Holes in Weakly Doped p-Ge:Ga at Low Temperatures](#) A I Veinger, A G Zabrodskii, T V Tisnek and S I Goloshchapov 103

012016 [Magnetoresistance in two-dimensional array of Ge/Si quantum dots](#) N P Stepina, E S Koptev, A G Pogosov, A V Dvurechenskii, A I Nikiforov and E Yu Zhdanov 109

012017 [Interference mechanism of magnetoresistance in variable range hopping: the effect of paramagnetic electron spins](#) A V Shumilin and V I Kozub 115

## **Low dimensional systems and heterostructures**

012018 [Disorder and Interaction Effects in Quantum Wires](#) L W Smith, K J Thomas, M Pepper, D A Ritchie, I Farrer, J P Griffiths and G A C Jones 121

012019 [Fano-Kondo oscillations of the conductance and thermopower in a mesoscopic transistor](#) A Aldea, M ũolea and I V Dinu 128

012020 [Distribution of the Entanglement Entropy in Disordered One-Dimensional Fermions](#) R Berkovits 133

012021 [Compositional disorder anomalies in Ga\(N,P,As\)/GaP quantum well structures](#) K Jandieri, S D Baranovskii, B Kunert, M Zimprich, S Liebich, K Volz, W Stolz, S Chatterjee, C Karcher, W Heimbrodt and F Gebhard 137

012022 [Calculation of charge carrier concentration profile and magnetoresistance in modulation doped structures with a wide potential well](#) L Shchurova 143

012023 [Resonant Tunneling in a Polymer with Charge Injection Doping](#) A Ionov and R Rentsch 149

## **Quantum coherence, interference and dephasing**

012024 [Interference quantum correction to conductivity of Al<sub>x</sub>Ga<sub>1-x</sub>As/GaAs double quantum well heterostructures near the balance](#) A V Germanenko, G M Minkov, O E Rut and A A Sherstobitov 157

012025 [Quantum Coherence in Photosynthetic Exciton Dynamics](#) P Nalbach and M Thorwart 163