Ann. Phys. (Leipzig) **8** (1999) 7 – 9, 533 – 536

Contents

Editorial
Michael Schreiber 537

* * *

Theoretical approaches to the metal-insulator transition in 2D
E. Abrahams 539

* * *

Persistent current in normal metals
P. Mohanty 549

* * *

Low-temperature dephasing in disordered conductors: experimental aspects
M. E. Gershenson 559

* * *

Scaling laws, phase diagram, localized magnetic moments and Kondo effect in two-dimensional metals
S. Washburn, N. J. Kim, X. G. Feng, Dragana Popović 569

* * *

Weak localization in the 2D metallic regime of Si-MOS
G. Brunthaler, A. Prinz, G. Bauer, V. M. Pudalov, E. M. Dizhur, J. Jaroszynski, P. Glod, T. Dietl 579

* * *

Ground state properties of disordered and dimerized spin chains
C. Schuster, U. Eckern 585

* * *

Metal-insulator transition in nanocomposites of glass and RuO_2
A. Kusy, A. W. Stadler, K. Mleczko, D. Żak, S. Pawłowski, P. Szałański, Z. Zawiślak, G. Grabecki, W. Plesiewicz, T. Dietl 589

* * *

Quantum critical behavior of itinerant ferromagnets
T. Vojta, D. Belitz, T. R. Kirkpatrick, R. Narayanan 593

* * *

The quantized Hall insulator
M. Hilke, D. Shahar, S. H. Song, D. C. Tsui, M. Shayegan, Y. H. Xie .. 603

* * *

Temperature and frequency scaling of the quantum Hall effect
R. Meisels, F. Kuchar, K. Dybko 609

* * *

Anderson localization and the integer quantum Hall transition: a new perspective
S. Kettemann, A. Tsvelik 615

* * *

Critical spectral statistics as the Luttinger liquid of energy levels at a finite temperature
V. E. Kravtsov 621

* * *

Scaling analysis of the low temperature conductivity in neutron-transmutation-doped ^{70}Ge:Ga
K. M. Itoh, M. Watanabe, Y. Ootuka, E. E. Haller 631

* * *

Stress-tuned metal-insulator transition in Si:B: dynamical scaling
S. Bogdanovich, M. P. Sarachik, R. N. Bhatt 639

* * *

Role of percolation in determining critical composition for the M-I transition in transition metal oxides
D. F. Holcomb 649

* * *

Review of recent progress on numerical studies of the Anderson transition
T. Ohtsuki, K. Slevin, T. Kawarabayashi 655

* * *

Quantum ergodicity for electrons in two dimensions
D. L. Shepelyansky, P. H. Song 665

* * *

Numerical results for two interacting particles in a random environment
R. A. Römer, M. Leadbeater, M. Schreiber 675

* * *

Exact eigenstates and transmission for two interacting electrons on quantum dots
A. Aharony, O. Entin-Wohlman, Y. Levinson, Y. Imry 685

* * *

Metallic phase between the Fermi glass and the Wigner crystal in two dimensions
X. Waintal, G. Benenti, J.-L. Pichard 691

* * *

Critical Hamiltonians with long range hopping
L. S. Levitov 697

* * *

Disorder induced ferromagnetism
E. Eisenberg, R. Berkovits 707

* * *

Does a magnetic field suppress the Coulomb gap?
B. Sandow, K. Gloos, R. Rentzsch, A. N. Ionov, W. Schirmacher 711

* * *

Direct observation of strong locallization of quasi-two-dimensional light waves
S. I. Bozhevolnyi 717

* * *

Propagation and localisation of vibrational modes in 3-dimensional disordered systems: the binary force constant model
W. Schirmacher, G. Diezemann 727

* * *

Global and local level dynamics in chaotic microwave billiards
M. Barth, U. Kuhl, H.-J. Stöckmann 733

* * *

Coulomb blockade and transport spectroscopy in short Si:MOSFET
M. Sanquer, M. Specht, L. Ghenim, S. Deleonibus, G. Guegan 743

* * *

Conductance distribution of disordered quasi one-dimensional wires
P. Wölfle, K. A. Muttalib 753

* * *

Addition spectra in disordered quantum dots with strongly interacting electrons
C. M. Canali, W. Stephan 759

* * *

The disordered Fermi-liquid fixed point and its instabilities
D. Belitz, T. R. Kirkpatrick 765

* * *

Conductivity of granular superconductors in a strong magnetic field
I. S. Beloborodov, K. B. Efetov 775

* * *

Superconductor-insulator transitions in films and bulk materials
A. Larkin 785

* * *

100 years ago 795