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A

Java Without the Coffee Breaks: A Nonintrusive Multiprocessor Garbage Collector, D. F. Bacon (IBM Corporation, P.O. Box 704, Yorktown Heights, NY 10598) et al., *ACM SIGPLAN Notices* **36**, No. 5, 92–103 (2001).

Heap Profiling for Space-Efficient Java, R. Shaham (Tel Aviv University, IL-69978 Tel Aviv, Israel) et al., *ACM SIGPLAN Notices* **36**, No. 5, 104–113 (2001).

A Framework for Reducing the Cost of Instrumented Code, M. Arnold (Rutgers State University, Piscataway, NJ 08854) and B. G. Ryder, *ACM SIGPLAN Notices* **36**, No. 5, 168–179 (2001).

Compiler-Based I/O Prefetching for Out-of-Core Applications, A. D. Brown (Carnegie Mellon University, Pittsburgh, PA 15213) et al., *ACM Transactions on Computer Systems* **19**, No. 2, 111–170 (2001).

A Route to Nanoscopic SiO₂ Posts Via Block-Copolymer Templates, H. C. Kim (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Advanced Materials* **13**, No. 11, 795+ (2001).

New Paradigms for Organic Catalysts: The First Organocatalytic Living Polymerization, J. L. Hedrick (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Angewandte Chemie* **40**, No. 14, 2712–2715 (2001).

Wavelength Tuning and Spectral Properties of Distributed-Feedback Diode Lasers with a Short External Optical Cavity, C. K. Laue (IBM Germany GmbH, Hechtsheimer Strasse 2, D-55131 Mainz, Germany) et al., *Applied Optics* **40**, No. 18, 3051–3059 (2001).

Imaging of Trapped Charge in SiO₂ and at the SiO₂-Si Interface, R. Ludeke (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and E. Cartier, *Applied Physics Letters* **78**, No. 25, 3998–4000 (2001).

Thermal Activation-Induced Sweep-Rate Dependence of Magnetic Switching Astroid, J. Z. Sun (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Applied Physics Letters* **78**, No. 25, 4004–4006 (2001).

Molecular-Beam-Deposited Yttrium-Oxide Dielectrics in Aluminum-Gated Metal-Oxide-Semiconductor Field-Effect Transistors: Effective Electron Mobility, L.-Å. Ragnarsson (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Applied Physics Letters* **78**, No. 26, 4169–4171 (2001).

Magnetotransport in Manganite Trilayer Junctions Grown by 90° Off-Axis Sputtering, J. S. Noh (University of Wisconsin, 1509 Union Avenue, Madison, WI 53706) et al., *Applied Physics Letters* **79**, No. 2, 233–235 (2001).

Integration of Self-Assembled Diblock Copolymers for Semiconductor Capacitor Fabrication, C. T. Black (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Applied Physics Letters* **79**, No. 3, 409–411 (2001).

Experimental Identification of Nitrogen Vacancy Complexes in Nitrogen-Implanted Silicon, L. S. Adam (University of Florida, Gainesville, FL 32611) et al., *Applied Physics Letters* **79**, No. 5, 623–625 (2001).

B

Pseudospectra Analysis, Nonlinear Eigenvalue Problems, and Studying Linear Systems with Delays, J. K. Cullum (Los Alamos National Laboratory, Los Alamos, NM 87545) and A. E. Ruehli, *Bit* **41**, No. 2, 265–281 (2001).

C

On the Likelihood Ratio Test for a Single Model Against the Mixture of Two Known Densities, H. Takeuchi (IBM Japan, Ltd., 1623-14 Shimotsuruma, Yamato, Kanagawa 242, Japan), *Communications in Statistics—Theory and Methods* **30**, No. 5, 931–942 (2001).

Exploring Data Mining Implementation, K. K. Hirji (IBM Canada, Ltd., 3500 Steeles Avenue East, Markham, Ontario L3R 2Z1, Canada), *Communications of the ACM* **44**, No. 7, 87–93 (2001).

Turing Memorial Lecture, N. Donofrio (IBM Corporation, Armonk, NY 10504), *Computer Journal* **44**, No. 2, 67–74 (2001).

Standards in the Smart Card World, D. Husemann (IBM Corporation, Säumerstrasse 4, 8803 Rüschlikon, Switzerland), *Computer Networks* **36**, No. 4, 473–487 (2001).

Stochastic Models for Telecom Commodity Prices, C. Kenyon (IBM Corporation, Säumerstrasse 4, 8803 Rüschlikon, Switzerland) and G. Cheliotis, *Computer Networks* **36**, No. 5–6, 533–555 (2001).

D

Lattice Attacks on Digital Signature Schemes, N. A. Howgrave-Graham (IBM Corporation, P.O. Box 704, Yorktown Heights, NY 10598) and N. P. Smart, *Designs, Codes and Cryptography* **23**, No. 3, 283–290 (2001).

E

Opportunistic Planning for a Fleet of Transportation Robots, M. Pasquier (Nanyang Technological University, Block N4 2A-32, Nanyang Avenue, Singapore 637989, Singapore) et al., *Engineering Applications of Artificial Intelligence* **14**, No. 3, 329–340 (2001).

Universal Models for Lorenz Maps, M. Martens (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and W. DeMelo, *Ergodic Theory and Dynamical Systems* **21**, 833–860 (2001).

Comparative Determination of the Electron Temperature in Ar-Plasma and N-2-Plasma with Electrostatic Probes, Optical-Emission Spectroscopy (OES) and Energy-Dispersive Mass Spectroscopy (EDMS), G. Crolly (IBM Deutschland GmbH, D-55131 Mainz, Germany) and H. Oechsner, *European Physical Journal—Applied Physics* **15**, No. 1, 49–56 (2001).

Surface Characterizations of Potassium Hydroxide Modified Uplex S-(R) Polyimide at an Elevated Temperature, W. X. Yu (National University of Singapore, 119260 Singapore, Singapore) and T. M. Ko, *European Polymer Journal* **37**, No. 9, 1791–1799 (2001).

Synchronized Data Services Over MPEG-2 Digital Television Broadcast Systems, J. Brunheroto (IBM Corporation, P.O. Box 704, Yorktown Heights, NY 10598) et al., *European Transactions on Telecommunications* **12**, No. 3, 231–237 (2001).

Observation of Change in the Oxidation State at Ferromagnet/Insulator Interface Upon Thermal Annealing, L. Seve (University of Connecticut, 2152 Hillside Road, Storrs, CT 06269) et al., *Europhysics Letters* **55**, No. 3, 439–444 (2001).

F

On the Effective Deployment of Functional Formal Verification, Y. Abarbanelvinov (IBM Israel, IL-31905 Haifa, Israel) et al., *Formal Methods in System Design* **19**, No. 1, 35–44 (2001).

Fuzzy Scheduling with Application to Real-Time Systems, M. Litoiu (IBM Corporation, 1140 Eglinton Avenue East, Don Mills, Ontario MC3 1H7, Canada) and R. Tadei, *Fuzzy Sets and Systems* **121**, No. 3, 523–535 (2001).

G

Matching Spherical Dust Solutions to Construct Cosmological Models, D. R. Matravers (University of Portsmouth, Portsmouth PO1 2EG, Hants, England) and N. P. Humphreys, *General Relativity and Gravitation* **33**, No. 3, 531–552 (2001).

H

Application of Hyperbranched Block Copolymers as Templates for the Generation of Nanoporous Organosilicates, J. L. Hedrick (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *High Performance Polymers* **13**, S11–S19 (2001).

I

Blue Gene: A Vision for Protein Science Using a Petaflop Supercomputer, F. Allen (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *IBM Systems Journal* **40**, No. 2, 310–327 (2001).

Mapping, Modeling, and Visual Exploration of Structure–Function Relationships in the Heart, R. L. Winslow (The Johns Hopkins University, School of Medicine, Baltimore, MD 21205) et al., *IBM Systems Journal* **40**, No. 2, 342–359 (2001).

Functional Classification of Proteins by Pattern Discovery and Top-Down Clustering of Primary Sequences, A. H. Liu (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and A. Califano, *IBM Systems Journal* **40**, No. 2, 379–393 (2001).

Fastfinger: A Study into the Use of Compressed Residue Pair Separation Matrices for Protein Sequence Comparison, B. Robson (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598), *IBM Systems Journal* **40**, No. 2, 442–463 (2001).

DiscoveryLink: A System for Integrated Access to Life Sciences Data Sources, L. M. Haas (IBM Corporation, 555 Bailey Road, San Jose, CA 95141) et al., *IBM Systems Journal* **40**, No. 2, 489–511 (2001).

Optimal PNNI Complex Node Representations for Restrictive Costs and Minimal Path Computation Time, I. Iliadis (IBM Corporation, Säumerstrasse 4, 8803 Rüschlikon, Switzerland), *IEEE ACM Transactions* **8**, No. 4, 493–506 (2000).

Toward Context-Aware Computing: Experiences and Lessons, J. Anhalt (5260 Forbes Avenue, Pittsburgh, PA 15217) et al., *IEEE Intelligent Systems & Their Applications* **16**, No. 3, 38–46 (2001).

Efficient Data Distribution in a Web Server Farm, R. C. Burns (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *IEEE Internet Computing* **5**, No. 4, 56–65 (2001).

MPEG-7 Multimedia Description Schemes, P. Salembier (Universitat Politècnica de Catalunya, ES-08034 Barcelona, Spain) and J. R. Smith, *IEEE Transactions on Circuits and Systems for Video Technology* **11**, No. 6, 748–759 (2001).

A Methodology for the Design of Perforated Tiles in Raised-Floor Data Centers Using Computational Flow Analysis, S. V. Kang (Aavid Thermalloy, Concord, NH 03301) et al., *IEEE Transactions on Components and Packaging Technologies* **24**, No. 2, 177–183 (2001).

Advanced Thermal Tester for Accurate Measurement of Internal Thermal Resistance of High-Power Electronic Modules, K. K. Sikka (IBM Corporation, Hopewell Junction, NY 12533), *IEEE Transactions on Components and Packaging Technologies* **24**, No. 2, 226–232 (2001).

On the Design Parameters of Flip-Chip PBGA Package Assembly for Optimum Solder Ball Reliability, K. Verma (Agere Systems, Breinigsville, PA 18031) et al., *IEEE Transactions on Components and Packaging Technologies* **24**, No. 2, 300–307 (2001).

Full-Wave PEEC Time-Domain Method for the Modeling of On-Chip Interconnects, P. J. Restle (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems* **20**, No. 7, 877–887 (2001).

Dynamic Binary Translation and Optimization, K. Ebcioglu (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *IEEE Transactions on Computers* **50**, No. 6, 529–548 (2001).

The Effects of Fluorine on Parametrics and Reliability in a 0.18- μm 3.5/6.8-nm Dual-Gate Oxide CMOS Technology, T. B. Hook (IBM Corporation, 1000 River Road, Essex Junction, VT 05452) et al., *IEEE Transactions on Electron Devices* **48**, No. 7, 1346–1353 (2001).

Improved Low-Temperature Characteristics of P-Channel MOSFETs with $\text{Si}_{1-x}\text{Ge}_x$ Raised Source and Drain, H. J. Huang (IBM Corporation, Route 52, Hopewell Junction, NY 12533) et al., *IEEE Transactions on Electron Devices* **48**, No. 8, 1627–1632 (2001).

A Detailed Investigation of the Quantum Yield Experiment, D. Ielmini (Politech Milan, I-20133 Milan, Italy) et al., *IEEE Transactions on Electron Devices* **48**, No. 8, 1696–1702 (2001).

Strong Optimality of the Normalized ML Models as Universal Codes and Information in Data, J. Rissanen (IBM Corporation, 650 Harry Road, San Jose, CA 95120), *IEEE Transactions on Information Theory* **47**, No. 5, 1712–1717 (2001).

Redundancy Detection in Semistructured Case Bases, K. Racine (IBM Corporation, 12 Concorde Place, Suite 500, Toronto, Ontario M3C 3R8, Canada) and Q. Yang, *IEEE Transactions on Knowledge and Data Engineering* **13**, No. 3, 513–518 (2001).

Generalized Communicators in the Message-Passing Interface, E. D. Demaine (University of Waterloo, Waterloo, Ontario N2L 3G1, Canada) et al., *IEEE Transactions on Parallel and Distributed Systems* **12**, No. 6, 610–616 (2001).

An Efficient Adaptive Scheduling Scheme for Distributed-Memory Multicomputers, T. Thanalapathi (IBM Corporation, 1150 Eglinton Avenue East, North York, Ontario M3C 1H7, Canada) and S. Dandamudi, *IEEE Transactions on Parallel and Distributed Systems* **12**, No. 7, 758–768 (2001).

CTK: Configurable Object Abstractions for Multiprocessors, D. M. Silva (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *IEEE Transactions on Software Engineering* **27**, No. 6, 531–549 (2001).

Biometrics Systems: Anatomy of Performance, A. Jain (Michigan State University, East Lansing, MI 48824) and S. Pankanti, *IEEE Transactions on Information and Systems* **84D**, No. 7, 788–799 (2001).

Improved Fingerprint Matching by Distortion Removal, A. W. Senior (IBM Corporation, P.O. Box 704, Yorktown Heights, NY 10598) and R. M. Bolle, *IEEE Transactions on Information and Systems* **84D**, No. 7, 825–832 (2001).

Compression in the Presence of Shared Data, M. Factor (IBM Israel, IL-31905 Haifa, Israel) and D. Sheinwald, *Information Sciences* **135**, No. 1–2, 29–41 (2001).

The Wrong Plan: Some Thoughts on National Missile Defense, R. Garwin (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598), *Interdisciplinary Science Reviews* **26**, No. 1, 31–34 (2001).

Knowledge Granularity Spectrum, Action Pyramid, and the Scaling Problem, Y. M. Ye (IBM Corporation, P.O. Box 704, Yorktown Heights, NY 10598) and J. K. Tsotsos, *International Journal of Pattern Recognition and Artificial Intelligence* **15**, No. 3, 379–404 (2001).

J

Chemical-Mechanical Planarization of Cu and Ta, S. V. Babu (Clarkson University, Potsdam, NY 13699) et al., *JOM—Journal of the Minerals Metals & Materials Society* **53**, No. 6, 50–52 (2001).

Thermally Assisted Decay of Pinning in Polycrystalline Exchange Biased Systems, M. J. Carey (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Journal of Applied Physics* **89**, No. 11, 6579–6584 (2001).

Ferromagnetic Resonance Observation of Exchange and Relaxation Effects in CrO₂, P. Lubitz (United States Navy, Washington, DC 20375) et al., *Journal of Applied Physics* **89**, No. 11, 6695–6697 (2001).

Towards Metallic Magnetic Memory: How to Interpret Experimental Results on Magnetic Switching Induced by Spin-Polarized Currents, Y. B. Bazaliy (Stanford University, Stanford, CA 94305) et al., *Journal of Applied Physics* **89**, No. 11, 6793–6795 (2001).

High-Frequency High-Field Permeability of Patterned Ni₈₀Fe₂₀ and Ni₄₅Fe₅₅ Thin Films, Y. M. Hsu (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Journal of Applied Physics* **89**, No. 11, 6808–6810 (2001).

Magnetic Tunnel Junctions with AlN and AlN_xO_y Barriers, M. M. Schwickert (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Journal of Applied Physics* **89**, No. 11, 6871–6873 (2001).

Oxygen-Enhanced IrMn Spin Valves Deposited by Ion-Beam and Magnetron Sputtering, W. Y. Lee (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Journal of Applied Physics* **89**, No. 11, 6925–6927 (2001).

Large Domain Wall Magnetoresistance Up to Room Temperature in La_{0.7}Sr_{0.3}MnO₃ Bridges with Nanoconstrictions, J. Wolfman (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Journal of Applied Physics* **89**, No. 11, 6955–6957 (2001).

Exploring the Microscopic Origin of Exchange Bias with Photoelectron Emission Microscopy, A. Scholl (University of California, Berkeley, CA 94720) et al., *Journal of Applied Physics* **89**, No. 11, 7266–7268 (2001).

Giant Magnetoresistance Effect of Co–TbN Macroscopic Ferrimagnets, T. W. Kim (Samsung Advanced Institute of Technology, P.O. Box 111, Suwon 440600, South Korea) et al., *Journal of Applied Physics* **89**, No. 11, 7299–7301 (2001).

Low-Resistance IrMn and PtMn Tunnel Valves for Recording Head Applications, J. R. Childress (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Journal of Applied Physics* **89**, No. 11, 7353–7355 (2001).

Growth, Structural, and Magnetic Properties of High Coercivity Co/Pt Multilayers, D. Weller (Seagate Technologies LLC, 2403 Sidney Street, Pittsburgh, PA 15203) et al., *Journal of Applied Physics* **89**, No. 11, 7525–7527 (2001).

Interfacial Reactions in Epitaxial Al/TiN(111) Model Diffusion Barriers: Formation of an Impervious Self-Limited Wurtzite-Structure AlN(0001) Blocking Layer, J. S. Chun (University of Illinois, 104 South Goodwin Avenue, Urbana, IL 61801) et al., *Journal of Applied Physics* **89**, No. 12, 7841–7845 (2001).

Excitation Dynamics of Dye-Doped Tris(8-Hydroxy Quinoline) Aluminum Films Studied Using Time-Resolved Photoelectron Spectroscopy, K. Read (National Institute of Standards and Technology, Boulder, CO 80309) et al., *Journal of Applied Physics* **90**, No. 1, 294–300 (2001).

High-Quality Aluminum Oxide Gate Dielectrics by Ultra-High-Vacuum Reactive Atomic-Beam Deposition, S. Guha (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Journal of Applied Physics* **90**, No. 1, 512–514 (2001).

Investigation of Surface Blistering of Hydrogen-Implanted Crystals, S. W. Bedell (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and W. A. Lanford, *Journal of Applied Physics* **90**, No. 3, 1138–1146 (2001).

An Explicit Solution to an Optimal Stopping Problem with Regime Switching, X. Guo (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598), *Journal of Applied Probability* **38**, No. 2, 464–481 (2001).

Rotational Echo Double-Resonance in ISN Spin Networks: Deconvolution of Multiple Dipole–Dipole Couplings, O. Liivak (IBM Corporation, 650 Harry Road, San Jose, CA 95120) and D. B. Zax, *Journal of Chemical Physics* **115**, No. 1, 402–409 (2001).

Efficient Multiple Time-Step Method for Use with Ewald and Particle Mesh Ewald for Large Biomolecular Systems, R. H. Zhou (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Journal of Chemical Physics* **115**, No. 5, 2348–2358 (2001).

Progress in Aberration-Corrected Scanning-Transmission Electron Microscopy, N. Dellby (Nion Research and Development, 1102 8th Street, Kirkland, WA 98033) et al., *Journal of Electron Microscopy* **50**, No. 3, 177–185 (2001).

Generalized Assignment Type Goal Programming Problem: Application to Nurse Scheduling, J. A. Ferland (University of Montreal, CP 6128, Montreal, Quebec H3C 3J7, Canada) et al., *Journal of Heuristics* **7**, No. 4, 391–413 (2001).

Optimized Effective Potential in Finite-Basis-Set Treatment, R. Colle (University of Bologna, Viale Risorgimento 2, I-40136 Bologna, Italy) and R. K. Nesbet, *Journal of Physics B* **34**, No. 12, 2475–2480 (2001).

Domain-Wall Resistivity in Epitaxial Thin-Film Microstructures, A. D. Kent (New York University, 4 Washington Place, New York, NY 10003) et al., *Journal of Physics—Condensed Matter* **13**, No. 25, R461–R488 (2001).

Thermodynamic Properties of Dendrimers Compared with Linear Polymers: General Observations, G. Hay (General Electric Corporation, Schenectady, NY 12309) et al., *Journal of Polymer Science Part B* **39**, No. 15, 1766–1777 (2001).

A General Approach to Dynamic Packet Routing with Bounded Buffers, A. Z. Broder (Digital Systems Research Center, 130 Lytton Avenue, Palo Alto, CA 94301) et al., *Journal of the ACM* **48**, No. 2, 324–349 (2001).

High-Throughput Synthesis of Nanoscale Materials: Structural Optimization of Functionalized One-Step Star Polymers, A. W. Bosman (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Journal of the American Chemical Society* **123**, No. 26, 6461–6462 (2001).

Self-Encapsulation of Poly-2, 7-Fluorenes in a Dendrimer Matrix, D. Marsitzky (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Journal of the American Chemical Society* **123**, No. 29, 6965–6972 (2001).

Development of a Slurry Employing a Unique Silica Abrasive for the CMP of Cu Damascene Structures, P. Wrschka (IBM/Infineon, Hopewell Junction, NY 12533) et al., *Journal of the Electrochemical Society* **148**, No. 6, G321–G325 (2001).

Absorption and Scattering in Low-Loss Polymer Optical Wave Guides, C. Pitois (Royal Institute of Technology, SE-10044 Stockholm, Sweden) et al., *Journal of the Optical Society of America B* **18**, No. 7, 908–912 (2001).

Head-Disk Dynamics in the Flying, Near-Contact, and Contact Regimes, R. H. Wang (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Journal of Tribology* **123**, No. 3, 561–565 (2001).

Field-Based Scanning Tunneling Microscope Manipulation of Antimony Dimers on Si(001), S. Rogge (Delft University of Technology, Lorentzweg 1, NL-2628 CJ Delft, Netherlands) et al., *Journal of Vacuum Science & Technology B* **19**, No. 3, 659–665 (2001).

A Visual Programming Language for Expressing Rhythmic Visuals, F. Collopy (Case Western Reserve University, 10900 Euclid Avenue, Cleveland, OH 44106) and R. M. Fuhrer, *Journal of Visual Languages and Computing* **12**, No. 3, 283–297 (2001).

Audiovisual Speaker Recognition for Video Broadcast News, B. Maison (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Journal of VLSI Signal Processing Systems for Signal Image and Video Technology* **29**, No. 1–2, 71–79 (2001).

L

Microfluidic Networks Made of Poly(Dimethylsiloxane), Si, and Au Coated with Polyethylene-Glycol for Patterning Proteins onto Surfaces, A. Papra (Riso National Laboratory, P.O. Box 49, 4000 Roskilde, Denmark) et al., *Langmuir* **17**, No. 13, 4090–4095 (2001).

M

Chain-End Functionalization in Nitroxide-Mediated Living Free-Radical Polymerizations, E. Harth (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Macromolecules* **34**, No. 12, 3856–3862 (2001).

Intrinsic Viscosity Variation in Different Solvents for Dendrimers and Their Hybrid Copolymers with Linear Polymers, M. Jeong (Stevens Institute of Technology, Hoboken, NJ 07030) et al., *Macromolecules* **34**, No. 14, 4927–4936 (2001).

Thermal Fatigue Behavior of Flip-Chip Joints with Lead-Free Solders, I. Shohji (Gumma University, Kiryu, Gumma 3768515, Japan) et al., *Materials Transactions* **42**, No. 5, 790–793 (2001).

Plasma Process-Induced Damage on Thick (6.8 nm) and Thin (3.5 nm) Gate Oxide: Parametric Shifts, Hot-Carrier Response, and Dielectric Integrity Degradation, T. B. Hook (IBM Corporation, 1000 River Road, Essex Junction, VT 05465) et al., *Microelectronics and Reliability* **41**, No. 5, 751–765 (2001).

SiGe Power Amplifier ICS with SWR Protection for Handset Applications, J. Pusch (IBM Corporation, RFIC Design Center, Encinitas, CA) et al., *Microwave Journal* **44**, No. 6, 100+ (2001).

High Thermal Conductivity Materials, K. Watari (IBM Corporation, Route 52, Hopewell Junction, NY 12533) and S. L. Shinde, *MRS Bulletin* **26**, No. 6, 440–441 (2001).

N

Growth Dynamics of Pentacene Thin Films, F. J. Meyer Zu Heringdorf (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Nature* **412**, No. 6846, 517–520 (2001).

Crack Dynamics in Brittle Fracture: An Atomistic Study, F. F. Abraham (IBM Corporation, 650 Harry Road, San Jose, CA 95120), *Nuclear Instruments & Methods in Physics Research Section B* **180**, 72–76 (2001).

O

A Fully Vectorial Technique for Scattering and Propagation in Three-Dimensional Stratified Photonic Structures, M. Paulus (IBM Corporation, Säumerstrasse 4, 8803 Rüschlikon, Switzerland) and O. J. F. Martin, *Optical and Quantum Electronics* **33**, No. 4–5, 315–325 (2001).

How to Tap an Innocent Wave Guide, M. Paulus (ETH Zentrum, Swiss Federal Institute of Technology, CH-8092 Zurich, Switzerland) and O. J. F. Martin, *Optics Express* **8**, No. 12, 644–648 (2001).

P

Modeling Calcium Handling in Cardiac Cells, J. J. Rice (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and M. S. Jafri, *Philosophical Transactions of the Royal Society of London Series A* **359**, No. 1783, 1143–1157 (2001).

Rotational Excitation from a Molecular Mirror: No Scattering from Ru(0001)-(1 × 1)H, B. Berenbak (FOM, Kruislaan 407, NL-1098 SJ Amsterdam, Netherlands) et al., *Physchemcomm* **15**, U1–U11 (2001).

Micromagnetic Simulation of Transverse Biased Initial Susceptibility Measurements, G. R. Aranda (Facultad de Químicas de San Sebastian, UPV, P.O. Box 1072, E-20080 Gipuzkoa, Spain) et al., *Physica B* **299**, No. 3–4, 205–214 (2001).

Realization of Quantum Process Tomography in NMR, A. M. Childs (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Physical Review A* **64**, No. 1, 2314+ (2001).

Competing Interactions in Dispersions of Superparamagnetic Nanoparticles, G. A. Held (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Physical Review B* **64**, No. 1, 2408+ (2001).

1/F Noise in Insulating $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$, F. P. Milliken (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and R. H. Koch, *Physical Review B* **64**, No. 1, 4505+ (2001).

Green's Tensor Technique for Scattering in Two-Dimensional Stratified Media, M. Paulus (IBM Corporation, Säumerstrasse 4, 8803 Rüschlikon, Switzerland) and O. J. F. Martin, *Physical Review E* **63**, No. 6, 6615+ (2001).

Active and Passive Particles: Modeling Beads in a Bacterial Bath, G. Gregoire (Centre d'Études Saclay, F-91191 Gif Sur Yvette, France) et al., *Physical Review E* **64**, No. 1, 1902+ (2001).

Determination of the Spin Polarization of Half-Metallic CrO_2 by Point-Contact Andreev Reflection, Y. Ji (The Johns Hopkins University, Baltimore, MD 21218) et al., *Physical Review Letters* **86**, No. 24, 5585–5588 (2001).

Closing the Pseudogap by Zeeman Splitting in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+y}$ at High Magnetic Fields, T. Shibauchi (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Physical Review Letters* **86**, No. 25, 5763–5766 (2001).

Hiding Bits in Bell States, B. M. Terhal (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Physical Review Letters* **86**, No. 25, 5807–5810 (2001).

Weighted Evolving Networks, S. H. Yook (University of Notre Dame, Notre Dame, IN 46556) et al., *Physical Review Letters* **86**, No. 25, 5835–5838 (2001).

Progress in the Methodologies for the Electrical Modeling of Interconnects and Electronic Packages, A. E. Ruehli (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and A. C. Cangelaris, *Proceedings of the IEEE* **89**, 740–771 (2001).

Business and Legal Issues in Enterprise Collaborations: A German Perspective, J. Eschenbacher (University of Bremen, D-28359 Bremen, Germany) et al., *Production Planning & Control* **12**, No. 5, 488–503 (2001).

S

Liquid-Crystal Alignment on Carbonaceous Surfaces with Orientational Order, J. Stohr (Stanford University, Stanford, CA 94309) et al., *Science* **292**, No. 5525, 2299–2302 (2001).

A Chemical Sensor Based on a Microfabricated Cantilever Array with Simultaneous Resonance Frequency and Bending Readout, F. M. Battiston (University of Basel, Klingelbergstrasse 82, CH-4056 Basel, Switzerland) et al., *Sensors and Actuators B* **77**, No. 1–2, 122–131 (2001).

Moving Up the Food Chain: Supporting e-Commerce Applications on Databases, A. Jhingran (IBM Corporation, 650 Harry Road, San Jose, CA 95120), *SIGMOD Record* **29**, No. 4, 50–54 (2000).

Reducing the Overhead of Dynamic Compilation, C. J. Krintz (University of California, La Jolla, CA 92093) et al., *Software—Practice & Experience* **31**, No. 8, 717–738 (2001).

Local Au Coverage as Driving Force for Au-Induced Faceting of Vicinal Si(001): A LEEM and XPEEM Study, F. J. Meyer Zu Heringdorf (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Surface Science* **480**, No. 3, 103–108 (2001).

T

DITA: An XML-Based Technical Documentation Authoring and Publishing Architecture, M. Priestley (IBM Canada, 1150 Eglinton Avenue East, North York, Ontario M3C 1H7, Canada) et al., *Technical Communication* **48**, No. 3, 352–367 (2001).

Interfacial Reaction Pathways and Kinetics During Annealing of Epitaxial Al/TiN(001) Model Diffusion Barrier Systems, J. S. Chun (Intel Corporation, 5200 Northeast Elam Young Parkway, Hillsboro, OR 97124) et al., *Thin Solid Films* **391**, No. 1, 69–80 (2001).

Introduction to Carbon Materials Research, M. S. Dresselhaus (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and P. Avouris, *Topics in Applied Physics* **80**, 1–9 (2001).

Electrical Transport Through Single-Wall Carbon Nanotubes, Z. Yao (Delft University of Technology, Lorentzweg 1, NL-2628 CJ Delft, Netherlands) et al., *Topics in Applied Physics* **80**, 147–171 (2001).

Mechanical Properties of Carbon Nanotubes, B. I. Yakobson (Rice University, Houston, TX 77251) and P. Avouris, *Topics in Applied Physics* **80**, 287–327 (2001).

V

Low-Power Design for ASIC Cores, A. Dean (University of Virginia, Charlottesville, VA 22903) et al., *VLSI Design* **12**, No. 3, 317–331 (2001).

Z

Preserving Digital Information: An Alternative to Full Emulation, R. A. Lorie (IBM Corporation, 650 Harry Road, San Jose, CA 95120), *Zeitschrift für Bibliothekswesen und Bibliographie* **48**, No. 3–4, 205–209 (2001).