

# Recent publications by IBM authors

---

The information listed here is supplied by the Institute for Scientific Information and other outside sources. Reprints of the papers may be obtained by writing directly to the first author cited.

- Journals are listed alphabetically by title; papers are listed sequentially for each journal.

## A

**Patterns, Architecture and Software**, R. Helm (IBM Consulting Group, Sydney, NSW, Australia), *ACM SIGPLAN Notices* **31**, No. 1, 2-3 (1996).

**A Model for Implementing an Object-Oriented Design Without Language Extensions**, J. Hamilton (IBM Corporation, 1150 Eglinton Avenue East, Toronto, Ontario M3C 1H7, Canada), *ACM SIGPLAN Notices* **31**, No. 1, 36-43 (1996).

**The Third International Conference on Parallel Computing Technologies (Pact-95): Saint Petersburg, Russia**, G. Silberman (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598), *ACM SIGPLAN Notices* **31**, No. 2, 8-9 (1996).

**The SIGPLAN Professional Activities Committee**, M. B. Rossen (Virginia Polytechnic Institute and State University, Blacksburg, VA 24061), *ACM SIGPLAN Notices* **31**, No. 3, 4 (1996).

**Do Programmers Need Seat Belts?**, D. Yellin (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598), *ACM SIGPLAN Notices* **31**, No. 3, 5 (1996).

**Do Programmers Need Seat Belts?**, R. Strom (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598), *ACM SIGPLAN Notices* **31**, No. 3, 6-7 (1996).

**Magic Conditions**, I. S. Mumick (AT&T Bell Labs, 600 Mountain Avenue, Murray Hill, NJ 07974) et al., *ACM Transactions on Database Systems* **21**, No. 1, 107-155 (1996).

**Comparison of Surface and Derivative Evaluation Methods for the Rendering of NuRb Surfaces**, W. L. Luken (IBM Corporation, P.O. Box 704, Yorktown Heights, NY 10598) and F. F. Cheng, *ACM Transactions on Graphics* **15**, No. 2, 153-178 (1996).

**X-ray Lithography with Environmentally Stable Chemical Amplification Positive Resist**, H. Ito (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *ACS Symposium Series* **620**, 387-398 (1996).

**Access to Silicon Derived Polymers Via Acyclic Diene Metathesis Chemistry**, S. Cummings (University of Florida, Gainesville, FL 32611) et al., *ACS Symposium Series* **624**, 113-129 (1996).

**Comparison of Linear, Hyperbranched, and Dendritic Macromolecules**, C. J. Hawker (IBM Corporation, 650 Harry Road, San Jose, CA 95120) and J. M. J. Frechet, *ACS Symposium Series* **624**, 132-144 (1996).

**Design, Synthesis, and Properties of Dendritic Macromolecules**, C. J. Hawker (IBM Corporation, 650 Harry Road, San Jose, CA 95120) and W. Devonport, *ACS Symposium Series* **624**, 186-196 (1996).

**Poly(Aryl Ether) Synthesis**, J. W. Labadie (Argonaut Technology Inc., 887 Ind. Road, San Carlos, CA 94070) et al., *ACS Symposium Series* **624**, 210-225 (1996).

**Poly(Aryl Ether Benzazole)s: Self-Polymerization of AB Monomers Via Benzimidazole Activated Ether Synthesis**, T. J. Matray (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *ACS Symposium Series* **624**, 266-275 (1996).

**Investigation of Monomer Reactivity in Poly(Aryl Ether) Synthesis Utilizing F-19 NMR-Spectroscopy**, K. R. Carter (IBM Corporation, 650 Harry Road, San Jose, CA 95120), *ACS Symposium Series* **624**, 276–291 (1996).

**A Survey of Some Recent Advances in Step Growth Polymerization**, J. W. Labadie (Argonaut Technology Inc., 887 Ind. Road, San Carlos, CA 94070) et al., *ACS Symposium Series* **624**, 294–305 (1996).

**Polycarbonates Derived from Trans-1,4-Cyclohexane Units**, J. W. Labadie (Argonaut Technology Inc., 887 Ind. Road, San Carlos, CA 94070) et al., *ACS Symposium Series* **624**, 350–361 (1996).

**Structure of the Charge Transfer Salt 2,2',5,5'-Tetraselenafulvalene-7,7,8,8-Tetracyano-P-Quinodimethane (TSEF-TCNQ)**, P. W. Corfield (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and S. J. LaPlaca, *Acta Crystallographica Section B52 APR*, 384–387 (1996).

**Structure, Chemistry and Bonding at Grain Boundaries in Ni<sub>3</sub>Al I. The Role of Boron in Ductilizing Grain Boundaries**, D. A. Muller (Cornell University, Ithaca, NY 14853) et al., *Acta Materialia* **44**, No. 4, 1637–1645 (1996).

**Spectral Analysis of M/G/1 and G/M/1 Type Markov-Chains**, H. R. Gail (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Advances in Applied Probability* **28**, No. 1, 114–165 (1996).

**Measurement of Radical Yields to Assess Radiation Resistance in Engineering Thermoplastics**, K. Heiland (University of Queensland, Brisbane, QLD 4072, Australia) et al., *Advances in Chemistry Series* **249**, 637–649 (1996).

**Emergence of an Information Society: Technologies, Infrastructures, Services**, E. Catania (IBM Italy, Segrate, MI, Italy), *AEI Automazione Energia Informazione* **83**, No. 1, 35–37 (1996).

**New Technologies for the Future of Telecommunications**, E. Hofmann (IBM Italy, Milan, Italy), *AEI Automazione Energia Informazione* **83**, No. 3, 83–87 (1996).

**Solving Constraint Satisfaction Problems Using A Teams**, S. R. Gorti (Spectragraphics Corporation, San Diego, CA 92122) et al., *AI EDAM, Artificial Intelligence for Engineering Design Analysis and Manufacturing* **10**, No. 1, 1–19 (1996).

**Polynomialrecurrenceology**, S. M. Gagola (Kent State University, Kent, OH 44242) et al., *American Mathematical Monthly* **103**, No. 3, 272–273 (1996).

**Periods of Strings**, J. B. Shearer (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598), *American Scientist* **84**, No. 3, 207 (1996).

**Structure and Dynamics of Methanol in a Zeolite**, E. Nusterer (IBM Corporation, Säumerstrasse 4, 8803 Rüschlikon, Switzerland) et al., *Angewandte Chemie, International Edition in English* **35**, No. 2, 175–177 (1996).

**On an Implementation of Standard Bases and Syzygies in Singular**, H. Grassmann (Humboldt University Berlin, 0-1086 Berlin, Germany) et al., *Applicable Algebra in Engineering Communication and Computing* **7**, No. 3, 235–249 (1996).

**A Precision Tester for Studies of Holographic Optical Storage Materials and Recording Physics**, M. P. Bernal (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Applied Optics* **35**, No. 14, 2360–2374 (1996).

**Polymeric Electrooptic Mach-Zehnder Switches**, J. I. Thackara (AKZO Nobel Electr. Prod. Inc., 1257 C Tasman Drive, Sunnyvale, CA 94089) et al., *Applied Physics Letters* **67**, No. 26, 3874–3876 (1995).

**Strain Relaxation in Silicon-Germanium Microstructures Observed by Resonant Tunneling Spectroscopy**, A. Zaslavsky (Brown University, Providence, RI 02912) et al., *Applied Physics Letters* **67**, No. 26, 3921–3923 (1995).

**Wavelength Selective Waveguide Photodetectors in Silicon-on-Insulator**, B. Pezeshki (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Applied Physics Letters* **68**, No. 6, 741–743 (1996).

**Hardness, Elastic Modulus, and Structure of Very Hard Carbon Films Produced by Cathodic-Arc Deposition with Substrate Pulse Biasing**, G. M. Pharr (Rice University, Houston, TX 77251) et al., *Applied Physics Letters* **68**, No. 6, 779–781 (1996).

**Microstructure of AlGaAs-Oxide Heterolayers Formed by Wet Oxidation**, S. Guha (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Applied Physics Letters* **68**, No. 7, 906–908 (1996).

**Photoemission Assignments of H<sub>2</sub>SiO<sub>4</sub> Fragments at the Si/SiO<sub>2</sub> Interface**, S. H. Lee (Brown University, Providence, RI 02912) et al., *Applied Physics Letters* **68**, No. 8, 1081–1083 (1996).

**Low-Field Giant Magnetoresistance in Sputtered Permalloy/Au Multilayers**, S. S. P. Parkin (IBM Corporation, 650 Harry Road, San Jose, CA 95120) and T. Rabeau, *Applied Physics Letters* **68**, No. 8, 1162–1164 (1996).

**A Silicon Nanocrystals Based Memory**, S. Tiwari (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Applied Physics Letters* **68**, No. 10, 1377–1379 (1996).

**Cu Segregation at the Al(Cu)Al<sub>2</sub>O<sub>3</sub> Interface**, M. Copel (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Applied Physics Letters* **68**, No. 12, 1625–1627 (1996).

**Electrically Detected Magnetic-Resonance Study of Stress-Induced Leakage Current in Thin SiO<sub>2</sub>**, J. H. Stathis (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598), *Applied Physics Letters* **68**, No. 12, 1669–1671 (1996).

**Structures and Dielectric Properties of Thin Polyimide Films with Nono-Foam Morphology**, H. J. Cha (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Applied Physics Letters* **68**, No. 14, 1930–1932 (1996).

**Thermal-Stability of Undoped Strained Si Channel SiGe Heterostructures**, H. Klauk (Penn State University, University Park, PA 16802) et al., *Applied Physics Letters* **68**, No. 14, 1975–1977 (1996).

**Local Electrochemical Oxidation/Reduction: First Step Towards a New Lithography**, J. P. Locquet (IBM Corporation, Säumerstrasse 4, 8803 Rüschlikon, Switzerland) et al., *Applied Physics Letters* **68**, No. 14, 1999–2001 (1996).

**Ripening Assisted Asymmetric Spalling of Cu–Sn Compound Spheroids in Solder Joints on Si Wafers**, H. K. Kim (University of California, Los Angeles, CA 90095) et al., *Applied Physics Letters* **68**, No. 16, 2204–2206 (1996).

**Scattering Spectroscopy of Molecules at Nanometer Resolution**, Y. Martin (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Applied Physics Letters* **68**, No. 18, 2475–2477 (1996).

**Nanolithographic Templates from Diblock Copolymer Thin-Films**, P. Manky (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Applied Physics Letters* **68**, No. 18, 2586–2588 (1996).

**In-Situ Scanning-Tunneling-Microscopy Observation on Surface Evolution in Magnetically Coupled Co/Cu Multilayers**, T. J. Minvielle (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Applied Physics Letters* **68**, No. 19, 2750–2752 (1996).

**High-Pressure Oxidation-Induced Stress in Submicron Trench Structures**, R. Stengl (IBM Corporation, Route 52, Hopewell Junction, NY 12533) et al., *Applied Physics Letters* **68**, No. 20, 2843–2845 (1996).

**Explanation for the Polarity Dependence of Breakdown in Ultrathin Silicon Dioxide Films**, D. J. Dimaria (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598), *Applied Physics Letters* **68**, No. 21, 3004–3006 (1996).

**Electric-Field Controllable Josephson Junctions of High Quality in High- $T_c$  Superconductors**, B. Mayer (IBM Corporation, Säumerstrasse 4, 8803 Rüschlikon, Switzerland) et al., *Applied Physics Letters* **68**, No. 21, 3031–3033 (1996).

**The Capacitance of Pt/Pb<sub>0.65</sub>La<sub>0.28</sub>Ti<sub>0.96</sub>O<sub>3</sub>/Pt Structures**, T. M. Shaw (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Applied Physics Letters* **68**, No. 21, 3043–3045 (1996).

**Band-Edge Photoluminescence from Pseudomorphic Si<sub>0.996</sub>Sn<sub>0.004</sub> Alloy**, A. S. T. Khan (University of Delaware, Newark, DE 19716) et al., *Applied Physics Letters* **68**, No. 22, 3105–3107 (1996).

**SWAMP: A Knowledge-Based System for the Dissemination of Sustainable Development Expertise to the Developing World**, M. Everard (National Rivers Authority, Rivers House, Waterside Drive, Aztec W, Bristol, Avon, England) et al., *Aquatic Conservation—Marine and Freshwater Ecosystems* **5**, No. 4, 261–275 (1995).

**Critical Behavior in the Computational Cost of Satisfiability Testing**, B. Selman (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and S. Kirkpatrick, *Artificial Intelligence* **81**, No. 1–2, 273–295 (1996).

**A Representation Language for Mechanical Behavior**, L. Joskowicz (Hebrew University of Jerusalem, IL-91904 Jerusalem, Israel) and D. Neville, *Artificial Intelligence in Engineering* **10**, No. 2, 109–116 (1996).

**Tribute to: Yazdani, Masoud**, E. Simoudis (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Artificial Intelligence Review* **10**, No. 1–2, 1 (1996).

**Near-Infrared Observations of Isothermal Twists in Barred Spiral Galaxies**, D. M. Elmegreen (Vassar College, Poughkeepsie, NY 12601) et al., *Astronomical Journal* **111**, No. 5, 1880–1888 (1996).

**Solar Active Regions as a Percolation Phenomenon II.**, P. E. Seiden (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and D. G. Wentzel, *Astronomical Journal* **460**, No. 1, 522–529 (1996).

## B

**Topology of the Pauling Hexagon and the Functional Interactions of Proteins**, O. Gurel (Touro College, New York, NY 10010) and D. Gurel, *Biophysical Journal* **70**, No. 2, PMCS (1996).

**Rights Management and Security in the Electronic Library**, L. C. Anderson (IBM Corporation, 650 Harry Road, San Jose, CA 95120) and J. B. Lotspiech, *Bulletin of the American Society for Information Science* **22**, No. 1, 21–23 (1995).

**DB2 Pricing**, T. Negriz (IBM Corporation, Route 100, Somers, NY 10589), *Byte* **21**, No. 3, 22 (1996).

## C

**New Model Catalysts: Uniform Platinum Cluster Arrays Produced by Electron Beam Lithography**, P. W. Jacobs (University of California, Berkeley, CA 94720) et al., *Catalysis Letters* **37**, No. 3–4, 131–136 (1996).

**Electron Dynamics at Semiconductor Surfaces and Interfaces**, R. Haight (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598), *Chemical Physics* **205**, No. 1–2, 231–244 (1996).

**Search for Oscillations in the Translational Energy-Dependence of the Dissociation of H<sub>2</sub> on Pd(100)**, C. T. Rettner (IBM Corporation, 650 Harry Road, San Jose, CA 95120) and D. J. Auerbach, *Chemical Physics Letters* **253**, No. 3–4, 236–240 (1996).

**Interaction of Water and Methanol with a Zeolite at High Coverages**, E. Nusterer (IBM Corporation, Säumerstrasse 4, 8803 Rüschlikon, Switzerland) et al., *Chemical Physics Letters* **253**, No. 5–6, 448–455 (1996).

**Synthesis, Crystal-Structure, and Optical and Thermal Properties of  $(C_4H_9NH_3)_2MI_4$  ( $M = Ge, Sn, Pb$ ),** D. B. Mitzi (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598), *Chemistry of Materials* **8**, No. 3, 791–800 (1996).

**Major Histocompatibility Complex Class-II Genes Control Susceptibility to Hypersensitivity Pneumonitis in the Mouse,** K. B. Donnelly (Colorado State University, Fort Collins, CO 80523) et al., *Chest* **109**, No. 3, 73 (1996).

**Tricrystal Experiments for Testing Pairing Symmetry in Cuprate Superconductors,** C. C. Tsuei (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Chinese Journal of Physics* **34**, No. 2, 195–200 (1996).

**Quasi-Particle Tunneling into High- $T_c$  Mercury-Cuprate Superconductors: Effects of  $D(X_2-Y_2)$  Order-Parameter Symmetry and a Two-Dimensional Van Hove Singularity,** J. Y. T. Wei (Columbia University, New York, NY 10027) et al., *Chinese Journal of Physics* **34**, No. 2, 450–454 (1996).

**Comparing Information Without Leaking It,** R. Fagin (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Communications of the ACM* **39**, No. 5, 77–85 (1996).

**Tessellation of Trimmed NuRb Surfaces,** W. L. Luken (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598), *Computer-Aided Engineering* **13**, No. 2, 163–177 (1996).

**Grasp92: A Package for Large Scale Relativistic Atomic Structure Calculations,** F. A. Parpia (IBM Corporation, P.O. Box 950, Poughkeepsie, NY 12602) et al., *Computer Physics Communications* **94**, No. 2–3, 249–271 (1996).

**Data Driven and Model Driven Multiresolution Processing,** A. Califano (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Computer Vision and Image Understanding* **63**, No. 1, 27–49 (1996).

**A Probabilistic Approach to Geometric Hashing Using Line Features,** F. C. D. Tsai (IBM Corporation, Säumerstrasse 4, 8803 Rüschlikon, Switzerland), *Computer Vision and Image Understanding* **63**, No. 1, 182–195 (1996).

**The Spook Solution: Now Open for Business,** M. Buckwell (IBM United Kingdom Ltd., Basingstoke RG21 7EJ, Hants, England), *Computers & Security* **15**, No. 1, 17–26 (1996).

## D

**The Incremental Development Process in Cleanroom Software Engineering,** C. J. Trammell (University of Tennessee, 107 Ayres Hall, Knoxville, TN 37996) et al., *Decision Support Systems* **17**, No. 1, 55–71 (1996).

**A New Unifying Heuristic Algorithm for the Undirected Minimum Cut Problems Using Minimum Range Cut Algorithms,** Y. Dai (Kobe University of Commerce, 8-2-1 Gakuen Nishimachi, Kobe 65121, Japan) et al., *Discrete Applied Mathematics* **65**, No. 1–3, 167–190 (1996).

**Estimation Methods for Passage Times Using One-Dependent Cycles,** P. J. Haas (IBM Corporation, 650 Harry Road, San Jose, CA 95120) and G. S. Shedler, *Discrete Event Dynamic Systems, Theory and Applications* **6**, No. 1, 43–72 (1996).

**The Sizes of Maximal Planar, Outerplanar, and Bipartite Planar Subgraphs,** R. Cimikowski (Montana State University, Bozeman, MT 59717) and D. Coppersmith, *Discrete Mathematics* **149**, No. 1–3, 303–309 (1996).

**On the Intractability of Hilbert's Nullstellensatz and an Algebraic Version of  $NP \neq P$ ,** R. Shub (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and S. Smale, *Duke Mathematical Journal* **81**, No. 1, 47–54 (1995).

## E

**High-Efficiency Quasi-Phasematched Frequency-Doubling Waveguides in  $KTiOPO_4$  Fabricated by Electric-Field Poling,** Q. Chen (Liconix Inc., Santa Clara, CA 95054) and W. P. Risk, *Electronics Letters* **32**, No. 2, 107–108 (1996).

**Asymmetric Fabry-Perot Modulator with a Waveguide Geometry,** F. Agahi (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Electronics Letters* **32**, No. 3, 210–212 (1996).

**Formulation for an Fe and Be Coupled Problem and Its Application to the Earmuff Earcanal System,** C. M. Lee (University Ulsan, 680749, Kyungnam, South Korea) et al., *Engineering Analysis with Boundary Elements* **16**, No. 4, 305–315 (1996).

**Optimal Batch Size and Raw Material Ordering Policy for a Production System with a Fixed Interval, Lumpy Demand Delivery System,** B. R. Sarker (Louisiana State University, Baton Rouge, LA 70803) and G. R. Parija, *European Journal of Operational Research* **89**, No. 3, 593–608 (1996).

**Damping of the Vortex Motion in Superconducting  $MO_3Si$  and  $YBa_2Cu_3O_{7-\Delta}$ ,** S. G. Doettinger (University of Tübingen, D-72076 Tübingen, Germany) et al., *Europhysics Letters* **33**, No. 8, 641–646 (1996).

**Evidence of 3D-XY Critical Behavior in  $La_{2-x}Sr_xCuO_4$  Films,** Y. Jaccard (IBM Corporation, Säumerstrasse 4, 8803 Rüschlikon, Switzerland) et al., *Europhysics Letters* **34**, No. 4, 281–286 (1996).

## F

**Supercritical Extraction and HPLC Analysis of Taxol from *Taxus-Brevifolia* Using Nitrous Oxide and Nitrous Oxide Plus Ethanol Mixtures,** V. Vandana (IBM Corporation, P.O. Box 950, Poughkeepsie, NY 12602) et al., *Fluid Phase Equilibria* **116**, No. 1–2, 162–169 (1996).

## I

**An Object-Oriented System for 3D Medical Image Analysis,** P. J. Elliott (IBM Corporation, Hursley Park, Winchester SO21 2JN, Hants, England) et al., *IBM Systems Journal* **35**, No. 1, 4–24 (1996).

**Event-Driven Network Topology Monitoring Function**, W. Chao (Hewlett-Packard Corporation, P. O. Box 700713, San Jose, CA 95170) and W. Tsun, *IBM Systems Journal* **35**, No. 1, 25–36 (1996).

**Access Control Systems: From Host-Centric to Network-Centric Computing**, M. Benantar (IBM Corporation, 522 South Road, Poughkeepsie, NY 12601) et al., *IBM Systems Journal* **35**, No. 1, 94–112 (1996).

**Creating the Computer Industry**, E. W. Pugh (IBM Corporation, 650 Harry Road, San Jose, CA 95120) and W. Aspray, *IEEE Annals of the History of Computing* **18**, No. 2, 7–17 (1996).

**Commercial Applications of the Digital Computer in American Corporations, 1945–1995**, J. W. Cortada (2917 Irvington Way, Madison, WI 53713), *IEEE Annals of the History of Computing* **18**, No. 2, 18–29 (1996).

**MLAP: A MAC Level Access Protocol for the HFC-802.14 Network**, C. Bisdikian (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *IEEE Communications Magazine* **34**, No. 3, 114–121 (1996).

**Superfaces: Polygonal Mesh Simplification with Bounded Error**, A. D. Kalvin (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and R. H. Taylor, *IEEE Computer Graphics and Applications* **16**, No. 3, 64–77 (1996).

**High-Speed P-Type SiGe Modulation Doped Field Effect Transistors**, M. Arafa (University of Illinois, Urbana, IL 61801) et al., *IEEE Electron Device Letters* **17**, No. 3, 124–126 (1996).

**Demonstration of NPN InAs Bipolar-Transistors with Inverted Base Doping**, P. E. Dodd (Sandia National Laboratories, P.O. Box 5800, Albuquerque, NM 87185) et al., *IEEE Electronic Device Letters* **17**, No. 4, 166–168 (1996).

**Low-Voltage Transient Bipolar Effect Induced by Dynamic Floating-Body Charging in Scaled Pd/SOI MOSFETs**, M. M. Pelella (IBM Corporation, Route 52, Hopewell Junction, NY 12533) et al., *IEEE Electron Device Letters* **17**, No. 5, 196–198 (1996).

**Digital FIR Filters for High-Speed PRML Disk Read Channels**, D. J. Pearson (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *IEEE Journal of Solid-State Circuits* **30**, No. 12, 1517–1523 (1995).

**A 2.4-GHz Silicon Bipolar Oscillator with Integrated Resonator**, M. Soyuer (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *IEEE Journal of Solid-State Circuits* **31**, No. 2, 268–270 (1996).

**Fault-Tolerant Designs for 256 MB DRAM**, T. Kirihata (IBM Corporation, Hopewell Junction, NY 12533) et al., *IEEE Journal of Solid-State Circuits* **31**, No. 4, 558–566 (1996).

**A 286-mm<sup>2</sup> 256MB DRAM with X32 Both-Ends DQ**, Y. Watanabe (IBM Corporation, Hopewell Junction, NY 12533) et al., *IEEE Journal of Solid-State Circuits* **31**, No. 4, 567–574 (1996).

**Hybrid Multilevel Control Scheme for Supporting Mixed Traffic in Broad-Band Networks**, C. S. Li (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *IEEE Journal on Selected Areas in Communications* **14**, No. 2, 306–316 (1996).

**Effect of Correlation in Diversity Systems with Rayleigh Fading, Shadowing, and Power Capture**, R. O. La Maire (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and M. Zorzi, *IEEE Journal on Selected Areas in Communications* **14**, No. 3, 449–460 (1996).

**Distributed Call Admission Control in Mobile/Wireless Networks**, M. Naghshineh (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and M. Schwartz, *IEEE Journal on Selected Areas in Communications* **14**, No. 4, 711–717 (1996).

**The EFX Editing and Effects Environment**, S. R. Alpert (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *IEEE Multimedia* **3**, No. 1, 15–29 (1996).

**Benchmarking the DBS3 Parallel Query Optimizer**, M. Zait (500 Oracle Parkway, Redwood Shores, CA 94065) et al., *IEEE Parallel & Distributed Technology* **4**, No. 2, 26–40 (1996).

**A Unified Trace Environment for IBM SP Systems**, C. E. Wu (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *IEEE Parallel & Distributed Technology* **4**, No. 2, 89–93 (1996).

**Large-Signal and Small-Signal Modulation Properties of Red (670 nm) VCSELs**, D. M. Kuchta (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *IEEE Photonics Technology Letters* **8**, No. 3, 307–309 (1996).

**Asymmetric Waveguide Devices with Buried ALOX Cladding Layers**, B. Pezeshki (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *IEEE Photonics Technology Letters* **8**, No. 3, 378–380 (1996).

**Effect of Bit-Rate, Bias, and Threshold Currents on the Turn-On Timing Jitter in Lasers Modulated with Uncoded and Coded Wave-Forms**, P. Pepeljugoski (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *IEEE Photonics Technology Letters* **8**, No. 3, 461–463 (1996).

**A Hyperstable Adaptive Line Enhancer for Fast Tracking of Sinusoidal Inputs**, M. Padmanabhan (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598), *IEEE Transactions on Circuits and Systems II* **43**, No. 4, 304–315 (1996).

**Rate Control of MPEG Video Coding and Recording by Rate-Quantization Modeling**, W. Ding (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and B. Liu, *IEEE Transactions on Circuits and Systems for Video Technology* **6**, No. 1, 12–20 (1996).

**A Locally Quadratic Model of the Motion Estimation Error Criterion Function and Its Application to Subpixel Interpolations**, X. M. Li (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and C. Gonzales, *IEEE Transactions on Circuits and Systems for Video Technology* **6**, No. 1, 118–122 (1996).

**Autocatalytic Gold Plating Process for Electronic Packaging Applications**, J. G. Gaudiello (IBM Corporation, 1701 North Street, Endicott, NY 13760), *IEEE Transactions on Components Packaging and Manufacturing Technology A* **19**, No. 1, 41–44 (1996).

**Theory of Pressure Sintering of Glass Ceramic Multichip Carriers**, H. M. Tong (IBM Corporation, Route 52, Hopewell Junction, NY 12533) et al., *IEEE Transactions on Components Packaging and Manufacturing Technology B* **19**, No. 1, 203–214 (1996).

**Broad Band Characterization of Low Dielectric Constant and Low Dielectric Loss CYTUF™ Cyanate Ester Printed Circuit Board Material**, A. Deutsch (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *IEEE Transactions on Components Packaging and Manufacturing Technology B* **19**, No. 2, 331–337 (1996).

**Noise Computation in Single-Chip Packages**, K. Bathey (Georgia Institute of Technology, Atlanta, GA 30332) et al., *IEEE Transactions on Components Packaging and Manufacturing Technology B* **19**, No. 2, 350–360 (1996).

**Adhesion Enhancement and Lamination of Polyimide Films**, N. C. Stoffel (Xerox Corporation, Webster, NY 14580) et al., *IEEE Transactions on Components Packaging and Manufacturing Technology B* **19**, No. 2, 417–422 (1996).

**Retiming Revisited and Reversed**, G. Even (University of Saarland, W-6600 Saarbrücken, Germany) et al., *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems* **15**, No. 3, 348–357 (1996).

**Analytic Modeling of Clustered Raid with Mapping Based on Nearly Random Permutation**, A. Merchant (Hewlett-Packard Labs, Page Mill Road, Palo Alto, CA 94303) and P. S. Yu, *IEEE Transactions on Computers* **45**, No. 3, 367–373 (1996).

**Self-Checking Comparator with One Periodic Output**, S. Kundu (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *IEEE Transactions on Computers* **45**, No. 3, 379–380 (1996).

**Finite-Difference, Time-Domain Analysis of Lossy Transmission Lines**, J. A. Roden (IBM Corporation, Research Triangle Park, NC 27709) et al., *IEEE Transactions on Electromagnetic Compatibility* **38**, No. 1, 15–24 (1996).

**Device Parameter Optimization for Reduced Short-Channel Effects in Retrograde Doping MOSFETs**, B. Agrawal (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *IEEE Transactions on Electron Devices* **43**, No. 2, 365–368 (1996).

**Identification of Gate Electrode Discontinuities in Submicron CMOS Technologies, and Effect on Circuit Performance**, K. A. Jenkins (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *IEEE Transactions on Electron Devices* **43**, No. 5, 759–765 (1996).

**Periodic Quasi-Orthogonal Spline Bases and Applications to Least-Squares Curve Fitting of Digital Images**, M. Flickner (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *IEEE Transactions on Image Processing* **5**, No. 1, 71–88 (1996).

**Tomographic Image Sequence Reconstruction by Edge-Preserving Interslice Map Methods**, W. Ding (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and B. Liu, *IEEE Transactions on Image Processing* **5**, No. 1, 178–183 (1996).

**Scalar Vector Quantization of Medical Images**, N. Mohsenian (IBM Corporation, 1701 North Street, Endicott, NY 13760) et al., *IEEE Transactions on Image Processing* **5**, No. 2, 387–392 (1996).

**Applications of Universal Context Modeling to Lossless Compression of Gray-Scale Images**, M. J. Weinberger (Hewlett-Packard Laboratories, Palo Alto, CA 94303) et al., *IEEE Transactions on Image Processing* **5**, No. 4, 575–586 (1996).

**Fisher Information and Stochastic Complexity**, J. J. Rissanen (IBM Corporation, 650 Harry Road, San Jose, CA 95120), *IEEE Transactions on Information Theory* **42**, No. 1, 40–47 (1996).

**Conservative Arrays: Multidimensional Modulation Codes for Holographic Recording**, A. Vardy (University of Illinois, 1101 West Springfield Avenue, Urbana, IL 61801) et al., *IEEE Transactions on Information Theory* **42**, No. 1, 227–230 (1996).

**MDS Array Codes with Independent Parity Symbols**, M. Blaum (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *IEEE Transactions on Information Theory* **42**, No. 2, 529–542 (1996).

**Maximum-Likelihood Parameter Estimation of the Harmonic, Evanescent, and Purely Indeterministic Components of Discrete Homogeneous Random Fields**, J. M. Francos (Ben Gurion University Negev, IL-84105 Beer Sheva, Israel) et al., *IEEE Transactions on Information Theory* **42**, No. 3, 916–930 (1996).

**Speeding-Up External Mergesort**, L. Q. Zheng (IBM Canada Ltd., 1150 Eglinton Avenue East, North York, Ontario M3C 1H7, Canada) and P. A. Larson, *IEEE Transactions on Knowledge and Data Engineering* **8**, No. 2, 322–332 (1996).

**On Coupling Multiple Systems with a Global Buffer**, M. S. Chen (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *IEEE Transactions on Knowledge and Data Engineering* **S47**, 128–135 (1996).

**Giant Magnetoresistive Spin-Valve Bridge Sensor**, J. K. Spong (Western Digital Media, Santa Clara, CA) et al., *IEEE Transactions on Magnetics* **32**, No. 2, 366–371 (1996).

**Efficient LRU-Based Buffering in a LAN Remote Caching Architecture**, A. Leff (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *IEEE Transactions on Parallel and Distributed Systems* 7, No. 2, 191-206 (1996).

**On the Design and Implementation of Broadcast and Global Combine Operations Using the Postal Model**, J. Bruck (California Institute of Technology, Pasadena, CA 91125) et al., *IEEE Transactions on Parallel and Distributed Systems* 7, No. 3, 256-265 (1996).

**Randomized Routing with Shorter Paths**, E. Upfal (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *IEEE Transactions on Parallel and Distributed Systems* 7, No. 4, 356-362 (1996).

**On General Results for All-to-All Broadcast**, M. S. Chen (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *IEEE Transactions on Parallel and Distributed Systems* 7, No. 4, 363-370 (1996).

**Computing Occlusion-Free Viewpoints**, K. Tarabanis (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *IEEE Transactions on Pattern Analysis and Machine Intelligence* 18, No. 3, 279-292 (1996).

**Implicit Simplicial Models for Adaptive Curve Reconstruction**, G. Taubin (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and R. Ronfard, *IEEE Transactions on Pattern Analysis and Machine Intelligence* 18, No. 3, 321-325 (1996).

**Practical Reliable Bayesian Recognition of 2D and 3D Objects Using Implicit Polynomials and Algebraic Invariants**, J. Subrahmonia (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *IEEE Transactions on Pattern Analysis and Machine Intelligence* 18, No. 5, 505-519 (1996).

**Determining the Discrete Time Reliability of a Repairable 2-out-of-(N + 1): F System**, K. L. Bruning (IBM Corporation, P.O. Box A, Essex Junction, VT 05452), *IEEE Transactions on Reliability* 45, No. 1, 150-155 (1996).

**Constrained Cartesian Motion Control for Teleoperated Surgical Robots**, J. Funda (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *IEEE Transactions on Robotics and Automation* 12, No. 3, 453-465 (1996).

**Resolution Limits in Signal Recovery**, S. Dharanipragada (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and K. S. Arun, *IEEE Transactions on Signal Processing* 44, No. 3, 546-561 (1996).

**Thoughts on Least Squared-Error Optimal Windows**, R. A. Gopinath (IBM Corporation, P.O. Box 704, Yorktown Heights, NY 10598), *IEEE Transactions on Signal Processing* 44, No. 4, 984-987 (1996).

**Distributed Shared Abstractions (DSA) on Multiprocessors**, C. Clemencon (Integrated Systems Engineering AG, Pflingstweidstrasse 30, CH-8005 Zurich, Switzerland) et al., *IEEE Transactions on Software Engineering* 22, No. 2, 132-152 (1996).

**A Query Algebra for Program Databases**, S. Paul (IBM Corporation, P.O. Box 704, Yorktown Heights, NY 10598) and A. Prakash, *IEEE Transactions on Software Engineering* 22, No. 3, 202-217 (1996).

**A Road Map to Solid Modeling**, C. M. Hoffmann (Purdue University, West Lafayette, IN 47907) and J. R. Rossignac, *IEEE Transactions on Visualization and Computer Graphics* 2, No. 1, 3-10 (1996).

**Routing on Longest Matching Prefixes**, W. Doeringer (FH Worms, Worms, Germany) et al., *IEEE/ACM Transactions on Networking* 4, No. 1, 86-97 (1996).

**Cell Multiplexing in ATM Networks**, Z. Rosberg (IBM Israel, Haifa, Israel), *IEEE/ACM Transactions on Networking* 4, No. 1, 112-122 (1996).

**Synthesis and Characterization of a BiS(um-Beta-Diketonato)BiS(1,2,5,6-ETA)-1,5-Dimethyl-1,5-Cyclooctadiene)Disilver Complex: An Intermediate in the Synthesis of an Isomerically Pure (Beta-Diketonato) ((1,2,5,6-eta)-1,5-Dimethyl-1,5-Cyclooctadiene)Copper(I) Complex**, P. Doppelt (Advance Technology Mat. Inc., 7 Commerce Street, Danbury, CT 06810) et al., *Inorganic Chemistry* 35, No. 5, 1286-1291 (1996).

**Evaluation of Surface Resistivity Measurements on ESD Protective Static Dissipative Materials**, P. Malinverni (European Comm. DGIII, Brussels, Belgium) and G. Reina, *Institute of Physics Conference Series* 143, 329-334 (1995).

**Electron-Microscopy Applications to Semiconductor Devices**, B. Cunningham (IBM Corporation, Route 52, Hopewell Junction, NY 12533) et al., *Institute of Physics Conference Series* 146, 565-574 (1995).

**Combined Focused Ion-Beam Electron Microscopy Investigation of Laser Diodes**, A. Dietzel (IBM Corporation, Säumerstrasse 4, 8803 Rüslikon, Switzerland) et al., *Institute of Physics Conference Series* 146, 583-586 (1995).

**Observation of Strong Transmission Electron Microscope Contrast from Doped Layers in InP-Based Structures**, R. Hull (University of Virginia, Charlottesville, VA 22903) et al., *Institute of Physics Conference Series* 146, 613-616 (1995).

**Abrupt Conduction-Band Shifts in Strained Quantum Wells**, P. E. Batson (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598), *Institute of Physics Conference Series* 147, 169-174 (1995).

**Platinum Alloys and Iridium Bottom Electrodes for Perovskite-Based Capacitors in DRAM Applications**, A. Grill (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and M. J. Brady, *Integrated Ferroelectrics* 9, No. 4, 299-308 (1995).

**Measurement of Electrooptic Properties of Ferroelectric Thin Films Using the Ultimate Ellipsometer**, G. Teowee (Donnelly Corporation, 4545 East Ft. Lowell, Tucson, AZ 85712) et al., *Integrated Ferroelectrics* 11, No. 1-4, 69-80 (1995).

**Complexity and Real Computation: A Manifesto**, L. Blum (Int. Comp. Sci. Institute, 1947 Center Street, Berkeley, CA 94704) et al., *International Journal of Bifurcation and Chaos* **6**, No. 1, 3–26 (1996).

**Reflectance Based Object Recognition**, S. K. Nayar (Columbia University, New York, NY 10027) and R. M. Bolle, *International Journal of Computer Vision* **17**, No. 3, 219–240 (1996).

**Finding Mixed Strategies with Small Supports in Extensive Form Games**, D. Koller (University of California, Berkeley, CA 94720) and N. Megiddo, *International Journal of Game Theory* **25**, No. 1, 73–92 (1996).

**Closure Statements of the Brinkman-Forchheimer-Extended Darcy Model**, K. Vafai (Ohio State University, Columbus, OH 43210) and S. J. Kim, *International Journal of Heat and Mass Transfer* **17**, No. 1, 35 (1996).

**Conjugate Mixed Convection in a Channel: Modified 5 Percent Deviation Rule**, C. Y. Choi (University of Arizona, Tucson, AZ 85721) and S. J. Kim, *International Journal of Heat and Mass Transfer* **39**, No. 6, 1223–1234 (1996).

**An Approach to the Design of a Skill Adaptive Interface**, Q. Gong (IBM Corporation, 1000 NW 51st Street, Boca Raton, FL 33431) and G. Salvendy, *International Journal of Human-Computer Interaction* **7**, No. 4, 365–383 (1995).

**Midwinters, End Games, and Body Parts: A Classification of Part-Whole Relations**, P. Gerstl (IBM Corporation, D-69115 Heidelberg, Germany) and S. Pribbenow, *International Journal of Human-Computer Studies* **43**, No. 5–6, 865–889 (1995).

**An Environment for Reusing Ontologies Within a Knowledge Engineering Approach**, T. Pirlein (Henkel KGAA, D-40191 Düsseldorf, Germany) and R. Studer, *International Journal of Human-Computer Studies* **43**, No. 5–6, 945–965 (1995).

**The Road to Lean Repetitive Batch Manufacturing: Modeling Planning System Performance**, P. Burcher (University of Aston, Birmingham B4 7ET, W. Midlands, England) et al., *International Journal of Operations & Production Management* **16**, No. 2, 210+ (1996).

**A Three-Dimensional Optical Interconnection Network with Distributed Control**, D. G. Feitelson (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *International Journal of Optoelectronics* **10**, No. 3, 163–177 (1996).

## J

**Two Domain Liquid Crystal Displays Fabricated by Parallel, Fringe-Field Method**, A. Lien (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and R. A. John, *Japanese Journal of Applied Physics Part 1* **35**, No. 1A, 156–159 (1996).

**State-Space Intercept Method for SEEK Control of Optical Disk Drives**, T. Semba (IBM Japan Ltd., Yamato, Kanagawa 242, Japan) and A. A. Fennema, *Japanese Journal of Applied Physics Part 1* **35**, No. 1B, 466–470 (1996).

**High- $T_c$  Superconductor-Insulator Superconductor Heterostructures with Highly Resistive Insulator Layers**, T. Frey (ABB Semiconductors AG, CH-5600 Lenzburg, Switzerland) et al., *Japanese Journal of Applied Physics Part 2* **35**, No. 3B, 384–386 (1996).

**Charge Trapping Properties of UV-Exposed Polyimide Films for the Alignment of Liquid Crystals**, K. H. Yang (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Japanese Journal of Applied Physics Part 2* **35**, No. 5A, L561–L563 (1996).

**Buckling Instability of Straight Edge Cracks**, H. M. Jensen (Technology University of Denmark, DK-2800 Lyngby, Denmark) and M. D. Thouless, *Journal of Applied Mechanics—Transactions of the ASME* **62**, No. 3, 620–625 (1995).

**Three-Dimensional Imaging with a Nuclear-Magnetic Resonance Force Microscope**, O. Zuger (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Journal of Applied Physics* **79**, No. 4, 1881–1884 (1996).

**Two-Dimensional Profiling of Shallow Junctions in Si Metal-Oxide-Semiconductor Structures Using Scanning Tunneling Spectroscopy and Transmission Electron-Microscopy**, E. T. Yu (University of California, La Jolla, CA 92093) et al., *Journal of Applied Physics* **79**, No. 4, 2115–2121 (1996).

**The Role of Texture in the Electromigration Behavior of Pure Aluminum Lines**, D. B. Knorr (Rensselaer Polytechnic Institute, Troy, NY 12180) and K. P. Rodbell, *Journal of Applied Physics* **79**, No. 5, 2409–2417 (1996).

**Degradation and Failure of MEH-PPV Light-Emitting Diodes**, J. C. Scott (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Journal of Applied Physics* **79**, No. 5, 2745–2751 (1996).

**Kinetics of Silicide Formation Measured by In-Situ Ramped Resistance Measurements**, E. G. Colgan (IBM Corporation, Route 52, Hopewell Junction, NY 12533) and F. M. d'Heurle, *Journal of Applied Physics* **79**, No. 8, 4087–4095 (1996).

**Colossal Magnetoresistance in the Antiferromagnetic  $\text{La}_{0.5}\text{Ca}_{0.5}\text{MnO}_3$  System**, G. Q. Gong (Brown University, Providence, RI 02912) et al., *Journal of Applied Physics* **79**, No. 8, 4538–4540 (1996).

**Magnetotransport and Hysteretic Behavior in Epitaxial  $\text{La}_{0.67}\text{Ca}_{0.33}\text{MnO}_{3-\delta}$  Films**, C. L. Canedy (Brown University, Providence, RI 02912) et al., *Journal of Applied Physics* **79**, No. 8, 4546–4548 (1996).

**Magnetoresistance and Magnetic Properties of  $\text{La}_{1-x}\text{MnO}_{3-x}$  Thin-Films**, T. R. McGuire (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Journal of Applied Physics* **79**, No. 8, 4549–4551 (1996).

**Nature of the Interlayer Coupling in Annealed  $\text{Ni}_{80}\text{Fe}_{20}/\text{Ag}$  Multilayers**, J. A. Borchers (NIST, Gaithersburg, MD 20899) et al., *Journal of Applied Physics* **79**, No. 8, 4762–4764 (1996).



**Micromagnetic Studies of Inhomogeneous CoPtCr Bicrystal Thin-Film Media**, Q. Z. Peng (University of California, La Jolla, CA 92093) et al., *Journal of Applied Physics* **79**, No. 8, 4916–4918 (1996).

**Investigation of Magnetic Coupling in Sputtered Epitaxial Fe/Cr and Co/Cu Wedged Structures**, X. Bian (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Journal of Applied Physics* **79**, No. 8, 4980–4982 (1996).

**Surface Roughness in Cu(100)/[Co/Cu]<sub>n</sub> Systems Grown by Ion-Beam Sputtering**, T. J. Minvielle (Stanford University, Stanford, CA 94305) et al., *Journal of Applied Physics* **79**, No. 8, 5116–5118 (1996).

**Epitaxial Fe<sub>16</sub>N<sub>2</sub> Films Grown on Si(001) by Reactive Sputtering**, M. A. Brewer (University of California, Berkeley, CA 94720) et al., *Journal of Applied Physics* **79**, No. 8, 5321–5323 (1996).

**Magnetic Recording Measurements of High Coercivity Longitudinal Media Using Magnetic Force Microscopy (MFM)**, P. Giljer (Toyota Technology Institute, Nagoya, Aichi 468, Japan) et al., *Journal of Applied Physics* **79**, No. 8, 5327–5329 (1996).

**Grain-Growth and Ordering Kinetics in CoPt Thin-Films**, K. Barmak (Lehigh University, Bethlehem, PA 18015) et al., *Journal of Applied Physics* **79**, No. 8, 5330–5332 (1996).

**Microstructure and Magnetic Properties of CoCrPt/Cr Films on Ultrasmooth NiP/AlMg Substrates**, L. Tang (Carnegie Mellon University, Pittsburgh, PA 15213) et al., *Journal of Applied Physics* **79**, No. 8, 5348–5350 (1996).

**Exchange Coupling in Rare-Earth/Transition-Metal Multilayers for Magnetic Superresolution**, A. M. Ayres (Stanford University, Stanford, CA 94305) and E. E. Marinero, *Journal of Applied Physics* **79**, No. 8, 5680–5682 (1996).

**Surface Diffusion of Thin Perfluoropolyalkylether Films**, T. M. O'Connor (Carnegie Mellon University, Pittsburgh, PA 15213) et al., *Journal of Applied Physics* **79**, No. 8, 5788–5790 (1996).

**Picosecond Time-Resolved Magnetization Dynamics of Thin-Film Heads**, M. R. Freeman (University of Alberta, Edmonton, Alberta T6G 2J1, Canada) and J. F. Smyth, *Journal of Applied Physics* **79**, No. 8, 5898–5900 (1996).

**Control of the Axis of Chemical Ordering and Magnetic Anisotropy in Epitaxial FePt Films**, R. F. C. Farrow (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Journal of Applied Physics* **79**, No. 8, 5967–5969 (1996).

**Spin Orientation in an Exchange-Coupled Fe/Cr/Fe Trilayer Determined by Polarized Neutron Reflection**, J. A. C. Bland (University of Cambridge, Cambridge CB3 0HE, England) et al., *Journal of Applied Physics* **79**, No. 8, 6295–6297 (1996).

**Study of Local Stress, Morphology, and Liquid Crystal Alignment on Buffed Polyimide Surfaces**, H. Kikuchi (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Journal of Applied Physics* **79**, No. 9, 6811–6817 (1996).

**Exchange Effect on the Space Charge in Nanostructure Resonances**, P. J. Price (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598), *Journal of Applied Physics* **79**, No. 9, 7379–7380 (1996).

**Space Charge Associated with Fano-Type Resonances in Nanostructures**, P. J. Price (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598), *Journal of Applied Physics* **79**, No. 9, 7381–7382 (1996).

**Resistance Noise in Uncoupled Giant Magnetoresistive Multilayers**, H. T. Hardner (University of Illinois, 1110 West Green Street, Urbana, IL 61801) et al., *Journal of Applied Physics* **79**, No. 10, 7751–7756 (1996).

**Debonding of Photoresists by Organic Solvents**, K. I. Papathomas (IBM Corporation, 1701 North Street, Endicott, NY 13760) and A. C. Bhatt, *Journal of Applied Polymer Science* **59**, No. 13, 2029–2037 (1996).

**Quantum-State Distributions for the HD Product of the Direct Reaction of H(D)/Cu(111) with D(H) Incident from the Gas Phase**, C. T. Rettner (IBM Corporation, 650 Harry Road, San Jose, CA 95120) and D. J. Auerbach, *Journal of Chemical Physics* **104**, No. 7, 2732–2739 (1996).

**D-2 Dissociative Adsorption on and Associative Desorption from Si(100): Dynamic Consequences of an *Ab-Initio* Potential Energy Surface**, A. C. Luntz (Odense University, DK-5230 Odense M, Denmark) and P. Kratzer, *Journal of Chemical Physics* **104**, No. 8, 3075–3091 (1996).

**The Torsional Potential of Perfluoro N-Alkanes: A Density Functional Study**, U. Rothlisberger (University of Pennsylvania, Philadelphia, PA 19104) et al., *Journal of Chemical Physics* **104**, No. 10, 3692–3700 (1996).

**A High-Order Explicit Method for the Computation of Flow About a Circular Cylinder**, C. R. Anderson (University of California, Los Angeles, CA 90024) and M. B. Reider, *Journal of Computational Physics* **125**, No. 1, 207–224 (1996).

**Integral-Equation Methods for Stokes-Flow and Isotropic Elasticity in the Plane**, L. Greengard (New York University, Mercer Street, New York, NY 10012) et al., *Journal of Computational Physics* **125**, No. 2, 403–414 (1996).

**Temporal Interactions of Intervals in Distributed Systems**, A. D. Kshemkalyani (IBM Corporation, Research Triangle Park, NC 27709), *Journal of Computer and System Sciences* **52**, No. 2, 287–298 (1996).

**Spin-Dependent Carrier Localization in Fe-Based Semimagnetic Semiconductor Heterostructures**, B. T. Jonker (USN, Research Laboratory, Washington, DC 20375) et al., *Journal of Crystal Growth* **159**, No. 1–4, 947–958 (1996).

**Low-Temperature Magnetoresistance of the Persistent Photoconductor Cd<sub>0.9</sub>Mn<sub>0.1</sub>Te-In**, I. Terry (University of Durham, Durham DH1 3LE, England) et al., *Journal of Crystal Growth* **159**, No. 1-4, 1070-1074 (1996).

**Atomic-Resolution Electronic Structure in Silicon-Based Semiconductors**, P. E. Batson (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598), *Journal of Electron Microscopy* **45**, No. 1, 51-58 (1996).

**Quantized Electronic States in Nanostructures**, F. J. Himpsel (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598), *Journal of Electron Spectroscopy and Related Phenomena* **75**, 187-195 (1995).

**X-ray Magnetic Circular Dichroism Spectroscopy of Transition Metal Thin Films**, J. Stohr (IBM Corporation, 650 Harry Road, San Jose, CA 95120), *Journal of Electron Spectroscopy and Related Phenomena* **75**, 253-272 (1995).

**Photoelectron Holography: Improvements to Atom Image Recovery from Experimental Data**, L. J. Terminello (Lawrence Livermore National Laboratory, P.O. Box 808, L-357, Livermore, CA 94550) et al., *Journal of Electron Spectroscopy and Related Phenomena* **75**, 299-308 (1995).

**Controlling the Dimensions of Laser-Chemical Vapor-Deposited Metallurgy**, L. Economikos (IBM Corporation, Route 52, Hopewell Junction, NY 12533) et al., *Journal of Electronic Packaging* **118**, No. 1, 7-10 (1996).

**Statistical Model for the Inherent Tilt of Flip Chips**, L. S. Goldmann (IBM Corporation, Route 52, Hopewell Junction, NY 12533), *Journal of Electronic Packaging* **118**, No. 1, 16-20 (1996).

**A Model for Deformation of Solder Bumps from Ramp Loading**, L. S. Goldmann (IBM Corporation, Route 52, Hopewell Junction, NY 12533), *Journal of Electronic Packaging* **118**, No. 1, 37-40 (1996).

**Recent Advances in the Study of Electrochemical Micromachining**, M. Datta (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Journal of Engineering for Industry—Transactions of the ASME* **118**, No. 1, 29-36 (1996).

**Examination of Hypotheses in the Kolmogorov Refined Turbulence Theory Through High Resolution Simulations I. Velocity Field**, L. P. Wang (University of Delaware, Newark, DE 19716) et al., *Journal of Fluid Mechanics* **309**, 113-156 (1996).

**Forced Convection in a Porous Channel with Localized Heat Sources**, K. Vafai (Ohio State University, Columbus, OH 43210) and S. J. Kim, *Journal of Heat Transfer—Transactions of the ASME* **117**, No. 4, 1097-1098 (1995).

**Modeling the Effects of Spatial Variability in Rainfall on Catchment Response I. Formulation and Calibration of a Stochastic Rainfall Field Model**, S. M. S. Shah (University of Newcastle-Upon-Tyne, Newcastle-Tyne NE1 7RU, Tyne & Wear, England) et al., *Journal of Hydrology* **175**, No. 1-4, 67-88 (1996).

**Modeling the Effects of Spatial Variability in Rainfall on Catchment Response II. Experiments with Distributed and Lumped Models**, S. M. S. Shah (University of Newcastle-Upon-Tyne, Newcastle-Tyne NE1 7RU, Tyne & Wear, England) et al., *Journal of Hydrology* **175**, No. 1-4, 89-111 (1996).

**Planar Silica-Glass Optical Wave Guides with Thermally Induced Lateral Mode Confinement**, W. K. Wang (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Journal of Lightwave Technology* **14**, No. 3, 429-436 (1996).

**Analysis of Magneto-optic Nonreciprocal Phase-Shift in Asymmetric Fibers for All-Fiber Isolators by Variational Vector-Wave Mode-Matching Method**, W. Wang (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Journal of Lightwave Technology* **14**, No. 5, 749-759 (1996).

**As-Deposited Crystalline Barium Ferrite Thin-Film Media for Longitudinal Recording**, J. S. Li (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Journal of Magnetism and Magnetic Materials* **153**, No. 1-2, 246-254 (1996).

**Structure and Magnetism of Ta/Co/Ta Sandwiches**, H. Lefakis (IPCMS, GRP Surfaces Interfaces, Rue Loess, F-67037 Strasbourg, France) et al., *Journal of Magnetism and Magnetic Materials* **154**, No. 1, 17-23 (1996).

**Microstructural Characterization of Ordered Nickel Silicide Structures Grown on (111) Nickel Silicide Films**, H. L. Ho (IBM Corporation, Route 52, Hopewell Junction, NY 12533) et al., *Journal of Materials Research* **11**, No. 4, 904-911 (1996).

**A Multitechnique Study of the Surface Preparation of InSb Substrate and Subsequently Grown CdTe Films by Molecular Beam Epitaxy**, Z. C. Feng (National University of Singapore, Singapore 0511, Singapore) et al., *Journal of Materials Science* **7**, No. 1, 23-26 (1996).

**Object-Oriented Methodologies in Practice: The Big Picture**, M. Dodani (IBM Corporation, Old Orchard Road, Armonk, NY 10504), *Journal of Object-Oriented Programming* **9**, No. 1, 26-29 (1996).

**Parallel Algorithms for Counting and Randomly Generating Integer Partitions**, L. A. Sanchis (Colgate University, Hamilton, NY 13346) and M. B. Squire, *Journal of Parallel and Distributed Computing* **34**, No. 1, 29-35 (1996).

**Chemical Vapor Deposition Precursor Chemistry 5. The Photolytic Laser Deposition of Aluminum Thin-Films by Chemical Vapor Deposition**, J. A. Glass (Syracuse University, Syracuse, NY 13244) et al., *Journal of Physical and Chemical Reference Data* **57**, No. 5, 563-570 (1996).

**Reference-State Density Functional Theory**, R. K. Nesbet (IBM Corporation, 650 Harry Road, San Jose, CA 95120), *Journal of Physical Chemistry* **100**, No. 5, 6104-6106 (1996).

**Spatially Confined Chemistry: Fabrication of Ge Quantum-Dot Arrays**, J. R. Heath (University of California, 405 Hilgard Avenue, Los Angeles, CA 90024) et al., *Journal of Physical Chemistry* **100**, No. 8, 3144–3149 (1996).

**Structural Modification of Single-Layer Carbon Nanotubes with an Electron Beam**, C. H. Kiang (Massachusetts Institute of Technology, Cambridge, MA 02139) et al., *Journal of Physical Chemistry* **100**, No. 9, 3749–3752 (1996).

**Reference-State Density-Functional Theory**, R. K. Nesbet (IBM Corporation, 650 Harry Road, San Jose, CA 95120), *Journal of Physical Chemistry* **100**, No. 15, 6104–6106 (1996).

**An Empirical Interaction Potential for the Ar/Pt(111) System**, D. Kulginov (Chalmers University of Technology, S-41296 Gothenburg, Sweden) et al., *Journal of Physical Chemistry* **100**, No. 19, 7919–7927 (1996).

**Flux-Quantization in Tricrystal Cuprate Rings: A New Probe of Pairing Symmetry**, C. C. Tsuei (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Journal of Physics and Chemistry of Solids* **56**, No. 12, 1787–1795 (1995).

**Calculation of Cross Sections for Rovibrational Excitation of N<sub>2</sub> By Electron Impact**, T. Grimmbsbach (University of Bonn, Wegelerstrasse 12, D-53115 Bonn, Germany) et al., *Journal of Physics B* **29**, No. 3, L105–L112 (1996).

**Alternative Density-Functional Theory for Atoms and Molecules**, R. K. Nesbet (IBM Corporation, 650 Harry Road, San Jose, CA 95120), *Journal of Physics B* **29**, No. 6, 173–179 (1996).

**Micromagnetic Analysis of Magnetization Reversal in CoPt Alloy Films**, J. Valentin (University of Duisburg, D-47048 Duisburg, Germany) et al., *Journal of Physics D* **29**, No. 5, 1111–1115 (1996).

**The Effect of Pulse Repetition Rate on Laser-Ablation of Polyimide and Polymethylmethacrylate Based Polymers**, F. C. Burns (91 Tobey Road, RR 2, Apalachin, NY 13732) and S. R. Cain, *Journal of Physics D* **29**, No. 5, 1349–1355 (1996).

**Synthesis and Structure of a New Perovskite, SrCuO<sub>2.5</sub>**, B. H. Chen (Columbia University, Palisades, NY 10964) et al., *Journal of Solid State Chemistry* **121**, No. 2, 498–501 (1996).

**Asymptotic Conditional Probabilities: The Non-Unary Case**, A. J. Grove (NEC Research Institute, 4 Independence Way, Princeton, NJ 08540) et al., *Journal of Symbolic Logic* **61**, No. 1, 250–276 (1996).

**On the Usage of Simulators to Detect Inefficiency of Parallel Programs Caused by Bad Schedulings: The SIMPARC Approach**, Y. Benasher (University of Haifa, IL-31905 Haifa, Israel) and G. Haber, *Journal of Systems and Software* **33**, No. 3, 313–327 (1996).

**Optical Properties of Spiroconjugated Charge Transfer Dyes**, P. Maslak (Pennsylvania State University, 152 Davey Lab, University Park, PA 16802) et al., *Journal of the American Chemical Society* **118**, No. 6, 1471–1481 (1996).

**A Dynamical Density-Functional Study on the Reaction of Ethylene with Cp<sub>2</sub>Zr(C<sub>2</sub>H<sub>4</sub>)<sup>+</sup>**, P. Margl (University of Calgary, Calgary, Alberta T2N 1N4, Canada) et al., *Journal of the American Chemical Society* **118**, No. 18, 4434–4441 (1996).

**Novel Multichannel Plasma Source Mass Spectrometer**, E. F. Cromwell (Stormedia Inc., 390 Reed Street, Santa Clara, CA 95050) and P. Arrowsmith, *Journal of the American Society for Mass Spectrometry* **7**, No. 5, 458–466 (1996).

**Improved Approximation Algorithms for Maximum Cut and Satisfiability Problems Using Semi-Definite Programming**, M. X. Goemans (Massachusetts Institute of Technology, Cambridge, MA 02139) and D. P. Williamson, *Journal of the Association for Computing Machinery* **42**, No. 6, 1115–1145 (1995).

**Effect of Mask Wall Angle on Shape Evolution During Through-Mask Electrochemical Micromachining**, R. V. Shenoy (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and M. Datta, *Journal of the Electrochemical Society* **143**, No. 2, 544–549 (1996).

**Wettability of Polished Silicon-Oxide Surfaces**, R. R. Thomas (Dupont Company, Inc., Deep Water, NJ 08023) et al., *Journal of the Electrochemical Society* **143**, No. 2, 643–648 (1996).

**A 0.25 μm MOSFET Technology Using In-Situ Rapid Thermal Gate Dielectrics**, K. X. Zhang (IBM Corporation, 11400 Burnet Road, Austin, TX 78758) et al., *Journal of the Electrochemical Society* **143**, No. 2, 744–749 (1996).

**Electromigration Drift Velocity in Al-Alloy and Cu-Alloy Lines**, C. K. Hu (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Journal of the Electrochemical Society* **143**, No. 3, 1001–1006 (1996).

**Non-Photosensitive, Vertically Redundant Two-Channel A-Si-H Thin Film Transistor**, Y. Kuo (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598), *Journal of the Electrochemical Society* **143**, No. 4, 1469–1471 (1996).

**Superconducting State in the Three-Band Hubbard-Model: A Variational Monte-Carlo Study**, T. Asahata (IBM Japan Ltd., Yamato, Kanagawa 242, Japan) et al., *Journal of the Physical Society of Japan* **65**, No. 2, 365–368 (1996).

**Evaluation of the Thermal Stability of Some Nonlinear Optical Chromophores**, R. B. Prime (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Journal of Thermal Analysis* **46**, No. 3–4, 1133–1150 (1996).

**Adsorption Induced Gas-Transport Phenomena in Narrow Air Channels Recorded with Work Function Detectors**, B. Flietner (IBM Corporation, Route 52, Hopewell Junction, NY 12533) et al., *Journal of Vacuum Science & Technology A* **14**, No. 2, 278–285 (1996).

**Development of 111 Texture in Al Films Grown on SiO<sub>2</sub>/Si(001) by Ultrahigh-Vacuum Primary-Ion Deposition**, Y. W. Kim (University of Illinois, Urbana, IL 61801) et al., *Journal of Vacuum Science & Technology A* **14**, No. 2, 346–351 (1996).

**Effects of Surface Oxide on the Rapid Thermal Nitridation of Si(001)**, M. Copel (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Journal of Vacuum Science & Technology A* **14**, No. 2, 462-464 (1996).

**Particle Formation Rates in Sulfur-Hexafluoride Plasma Etching of Silicon**, M. P. Garrity (IBM Corporation, Route 52, Hopewell Junction, NY 12533) et al., *Journal of Vacuum Science & Technology A* **14**, No. 2, 550-555 (1996).

**Three-Dimensional Modeling of Low-Dose  $BF_2$  < Implantation into Single Crystalline Silicon**, C. S. Murthy (IBM Corporation, Route 52, Hopewell Junction, NY 12533) et al., *Journal of Vacuum Science & Technology B* **14**, No. 1, 278-282 (1996).

**Imaging Integrated Circuit Dopant Profiles with the Force-Based Scanning Kelvin Probe Microscope**, T. Hochwitz (Dartmouth College, Hanover, NH 03755) et al., *Journal of Vacuum Science & Technology B* **14**, No. 1, 440-446 (1996).

**Capacitive Effects on Quantitative Dopant Profiling with Scanned Electrostatic Force Microscopes**, T. Hochwitz (Dartmouth College, Hanover, NH 03755) et al., *Journal of Vacuum Science & Technology B* **14**, No. 1, 457-462 (1996).

**Role of Gas-Phase Reactions in Subatmospheric Chemical-Vapor-Deposition Ozone/TEOS Processes for Oxide Deposition**, I. A. Shareef (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Journal of Vacuum Science & Technology B* **14**, No. 2, 772-774 (1996).

**Characteristics of Photon Scanning Tunneling Microscope Read-out**, K. Kobayashi (IBM Japan Ltd., 1 Kirihara cho, Fujisawa, Kanagawa 252, Japan) and O. Watanuki, *Journal of Vacuum Science & Technology B* **14**, No. 2, 804-808 (1996).

**Design and Performance Analysis of a Three-Dimensional Sample Translation Device Used in Ultrahigh-Vacuum Scanned Probe Microscopy**, R. R. Schlittler (IBM Corporation, Säumerstrasse 4, 8803 Rüschlikon, Switzerland) and J. K. Gimzewski, *Journal of Vacuum Science & Technology B* **14**, No. 2, 827-831 (1996).

**Scanning Force Microscopy in the Dynamic Mode Using Microfabricated Capacitive Sensors**, N. Blanc (IBM Corporation, Säumerstrasse 4, 8803 Rüschlikon, Switzerland) et al., *Journal of Vacuum Science & Technology B* **14**, No. 2, 901-905 (1996).

**Low-Temperature Magnetic-Resonance Force Detection**, K. Wago (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Journal of Vacuum Science & Technology B* **14**, No. 2, 1197-1201 (1996).

**Study of Plastic Flow in Ultrasmall Au Contacts**, A. Stalder (IBM Corporation, Säumerstrasse 4, 8803 Rüschlikon, Switzerland) and U. Dürig, *Journal of Vacuum Science & Technology B* **14**, No. 2, 1259-1263 (1996).

**Studying Membranes with Scanning Force Microscopy and Patch Clamp Technique**, J. Mosbacher (European Molecular Biology Laboratory, D-69117 Heidelberg, Germany) et al., *Journal of Vacuum Science & Technology B* **14**, No. 2, 1449-1452 (1996).

## L

**Via Production Benefits from Excimer-Laser Tools**, R. S. Patel (IBM Corporation, Route 52, Hopewell Junction, NY 12533) et al., *Laser Focus World* **32**, No. 1, 71-75 (1996).

**Optimization Using Tuple Subsumption**, V. Harinarayan (Stanford University, Stanford, CA 94305) and A. Gupta, *Lecture Notes in Computer Science* **893**, 338-352 (1996).

**Networked Information Systems as Digital Libraries**, J. Slonim (IBM Canada, Ltd., Toronto, Ontario, Canada) and L. Baronlaurie, *Lecture Notes in Computer Science* **916**, 51-61 (1995).

**PVME: An Enhanced Implementation of PVM for the IBM 9076-SP2**, M. Bernaschi (IBM European Center Science & Engineering Company, Rome, Italy) and G. Richelli, *Lecture Notes in Computer Science* **919**, 461-471 (1995).

**Benchmarking the Parallel Fire Code on IBM SP1-2 Scalable Parallel Platforms**, G. Bachler (AVL, GmbH, Graz, Austria) et al., *Lecture Notes in Computer Science* **919**, 640-645 (1995).

**Scheduling Task Tree with Additive Scales on Parallel/Distributed Machines**, X. D. Yu (Columbia University, New York, NY 10027) and M. T. Yung, *Lecture Notes in Computer Science* **959**, 607-616 (1995).

**State Enumeration with Abstract Descriptions of State Machines**, F. Corella (IBM Corporation, Old Orchard Road, Armonk, NY 10504) et al., *Lecture Notes in Computer Science* **987**, 146-160 (1995).

**Tolane Oligomers: Model Thermotropic Liquid Crystals**, R. J. Twieg (Washington University, WD-12, Seattle, WA 98195) et al., *Liquid Crystals* **20**, No. 3, 287-292 (1996).

## M

**Perfluoropolyethers: Analysis by TOF-SIMS**, A. M. Spool (IBM Corporation, 5600 Cottle Road, San Jose, CA 95193) and P. H. Kasai, *Macromolecules* **29**, No. 5, 1691-1697 (1996).

**Kerr Effect and Wide Angle Light Scattering Studies of a Para-Aromatic Polyamide in Dilute Solution**, A. J. Shere (University of Massachusetts, Amherst, MA 01003) et al., *Macromolecules* **29**, No. 6, 2088-2094 (1996).

**Interphase Mixing in Symmetrical Diblock Copolymers Determined by Proton Deuterium CP/MAS NMR**, N. Zumbulyadis (Eastman Kodak Company, Rochester, NY 14650) et al., *Macromolecules* **29**, No. 6, 2201-2204 (1996).

**Self-Assembled Thin-Film Blends by Polymer Codeposition: Poly(Ethylene Oxide) and Poly(Methyl Methacrylate)**, C. L. Hoffmann (Charles Evans & Associates, 301 Chesapeake Drive, Redwood City, CA 94063) and J. F. Rabolt, *Macromolecules* **29**, No. 7, 2543–2547 (1996).

**Well-Defined Random Copolymers by a Living Free Radical Polymerization Process**, C. J. Hawker (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Macromolecules* **29**, No. 7, 2686–2688 (1996).

**LiCl Induced Morphological Changes in Polyaniline Base and Their Effect on the Electronic Properties of the Doped Form**, M. Angelopoulos (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Macromolecules* **29**, No. 8, 3046–3049 (1996).

**Influence of Free-Volume Change on the Relative Permittivity and Refractive Index in Fluoropolyimides**, G. Hougham (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Macromolecules* **29**, No. 10, 3453–3456 (1996).

**Conformations and Structures of Poly(Oxyethylene) Melts from Molecular-Dynamics Simulations and Small-Angle Neutron-Scattering Experiments**, G. D. Smith (University of Missouri, Columbia, MO 65211) et al., *Macromolecules* **29**, No. 10, 3462–3469 (1996).

**Polyimide Nanofoams from Caprolactone-Based Copolymers**, J. L. Hedrick (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Macromolecules* **29**, No. 10, 3642–3646 (1996).

**Hyperbranched Poly(Ethylene Glycol)s: A New Class of Ion Conducting Materials**, C. J. Hawker (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Macromolecules* **29**, No. 11, 3831–3838 (1996).

**A Monte Carlo Simulation of Asymmetric Random Copolymers at an Immiscible Interface**, G. D. Smith (University of Missouri, Columbia, MO 65211) et al., *Macromolecules* **29**, No. 11, 4120–4124 (1996).

**Macroporous Epoxy Networks Via Chemically Induced Phase Separation**, J. Kiefer (Swiss Federal Institute of Technology, CH-1015 Lausanne, Switzerland) et al., *Macromolecules* **29**, No. 11, 4158–4160 (1996).

**Chemical Identification on the Atomic Scale in MBE-Grown III-V Alloy Semiconductors**, P. M. Koenraad (IBM Corporation, Säumerstrasse 4, 8803 Rüschlikon, Switzerland) et al., *Materials Science* **F196**, 1471–1480 (1995).

**Formation and Stability of Silicides on Polycrystalline Silicon**, E. G. Colgan (IBM Corporation, Route 52, Hopewell Junction, NY 12533) et al., *Materials Science & Engineering R—Reports* **16**, No. 2, 43–96 (1996).

**An Enlarged Family of Packing Polynomials on Multidimensional Lattices**, L. B. Morales (National Autonomous University of Mexico, Mexico City 04510, DF, Mexico) and J. S. Lew, *Mathematical Systems Theory* **29**, No. 3, 293–303 (1996).

**Diagonal Polynomials for Small Dimensions**, J. S. Lew (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Mathematical Systems Theory* **29**, No. 3, 305–310 (1996).

**Planning for Concurrent Engineering**, S. E. Carlson (IBM Corporation, 1051 East Cary Street, Richmond, VA 23219) and N. Ter-Minassian, *Medical Device & Diagnostic Industry* **18**, No. 5, 202+ (1996).

**Electrostatic Controversy**, K. D. Murray (IBM Corporation, P.O. Box A, Essex Junction, VT 05452), *Micro* **13**, No. 9, 12 (1995).

**Optimizing Air-Flow, Eliminating Backside Contamination in a Photoresist Spin Coater**, R. J. Bunkofske (IBM Corporation, P.O. Box A, Essex Junction, VT 05452), *Micro* **13**, No. 9, 35+ (1995).

**Upgrading a Bulk Chemical-Distribution System to Meet Changing Demands**, R. S. Korman (Mega Systems & Chemistry, Chandler, AZ) et al., *Micro* **14**, No. 4, 37–41 (1996).

**Electron Beam Microcolumn Fabrication and Testing**, M. Despont (IBM Corporation, Säumerstrasse 4, 8803 Rüschlikon, Switzerland) et al., *Microelectronic Engineering* **30**, No. 1–4, 69–72 (1996).

**Ab Initio Molecular Dynamics Study of Metallocene Catalyzed Ethylene Polymerization III. Bis-cyclopentadienyl Versus Mono-Cyclopentadienyl Metallocenes**, S. Iarlori (DSM, Research & Patents, P.O. Box 18, 6160 Md Geleen, Netherlands) et al., *Molecular Physics* **87**, No. 4, 801–815 (1996).

## N

**Impact and Characterization of Heavy Ion Tracks on Epitaxial Growth**, F. Baudenbacher (University of Cambridge, Cambridge CB3 0HE, England) et al., *Nuclear Instruments & Methods in Physics Research Sector B* **107**, No. 1–4, 327–332 (1996).

**Coupling Constants for Scalar Glueball Decay**, J. Sexton (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Nuclear Physics B* **S47**, 128–135 (1996).

**Miscellanies of  $K^0-\bar{K}^0$  Mixing and  $B_s$** , M. Klomfass (Columbia University, New York, NY 10027) and W. Lee, *Nuclear Physics B* **S47**, 469–472 (1996).

**A Diffusion Anomaly in Dipole-Oriented Two-Dimensional Excitons in GaAs/AlGaAs Coupled Quantum-Wells**, T. Fukuzawa (IBM Japan Ltd., Yamato, Kanagawa 242, Japan) and E. Yamada, *Nuovo Cimento Della Societa Italiana Di Fisica D* **17**, No. 11-1, 1459–1463 (1995).

## O

**Hybrid Optical Implementation of Discrete Wavelet Transforms: A Tutorial**, C. Decusatis (IBM Corporation, P.O. Box 950, Poughkeepsie, NY 12602) et al., *Optics and Laser Technology* **28**, No. 2, 51–58 (1996).

**Micromechanical Thermal Deformation Analysis of Unidirectional Boron/Aluminum Metal-Matrix Composite**, B. Han (IBM Corporation, 1701 North Street, Endicott, NY 13760), *Optics and Lasers in Engineering* **24**, No. 5-6, 455-466 (1996).

**Photon-Gated Photoconductivity of  $\text{Pr}_{3+}\text{YAg}$** , G. Wittmann (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Optics Letters* **21**, No. 6, 426-428 (1996).

## P

**Removal of Particulate Contaminants Using Ultrasonics and Megasonics**, G. W. Gale (IBM Corporation, P.O. Box A, Essex Junction, VT 05452) and A. A. Busnaina, *Particulate Science and Technology* **13**, No. 3-4, 197-211 (1995).

**A Performance Model of a Connection-Oriented Hypercube Interconnection System**, I. Chlamtac (University of Massachusetts, Amherst, MA 01003) et al., *Performance Evaluation* **25**, No. 2, 151-167 (1996).

**Oxidation of Refractory Intermetallic Compounds: Kinetics and Thermodynamics**, S. L. Zhang (Royal Institute of Technology, S-16440 Kista, Sweden) et al., *Philosophical Magazine A* **73**, No. 3, 709-722 (1996).

**Variation of the Effective Elastic Constants in the Sample Coordinate System with Tilt Angle (PSI) for X-ray Strain-Stress Analysis**, Y. C. Song (Columbia University, New York, NY 10027) and I. C. Noyan, *Philosophical Magazine A* **73**, No. 4, 1105-1112 (1996).

**The Relationship Between the Golden Section-Phi and the Elastic Constants of Ensembles Selected by Diffraction Methods**, C. E. Murray (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and I. C. Noyan, *Philosophical Magazine A* **73**, No. 5, 1313-1321 (1996).

**Raman Study of the Oxygen Vibrations in 123-Superconductors**, E. Liarokapis (National Technology University of Athens, GR-15780 Athens, Greece) et al., *Physica B* **220**, 139-141 (1996).

**Phonon Raman-Scattering of  $\text{Sr}_2\text{RuO}_4$** , M. Udagawa (Hiroshima University, Higashi Hiroshima 739, Japan) et al., *Physica B* **220**, 222-224 (1996).

**Visualization of Columnar Defects in Superconductors**, P. Bauer (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Physica C* **258**, No. 1-2, 84-94 (1996).

**Domain Nucleation and Wall Velocity in Magneto-optical Amorphous Thin-Films**, M. Hirscher (University of Pennsylvania, Philadelphia, PA 19104) et al., *Physica Status Solidi A* **154**, No. 2, 755-764 (1996).

**Concentrating Partial Entanglement by Local Operations**, C. H. Bennett (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Physical Review A* **53**, No. 4, 2046-2052 (1996).

**Five Two-Bit Quantum Gates are Sufficient to Implement the Quantum Fredkin Gate**, J. A. Smolin (University of California, Los Angeles, CA 90025) and D. P. DiVincenzo, *Physical Review A* **53**, No. 4, 2855-2856 (1996).

**Calculation of Cross Sections for Rovibrational Excitation of  $\text{N}_2$  By Electron Impact**, T. Grimmbosch (University of Bonn, Wegelerstrasse 12, D-53115 Bonn, Germany) et al., *Physical Review B* **29**, No. 3, 105-112 (1996).

**Free-Energy of the Concerted-Exchange Mechanism for Self-Diffusions in Silicon**, A. Antonelli (University of Estadual Campinas, BR-13083970 Campinas, SP, Brazil) et al., *Physical Review B* **53**, No. 3, 1310-1314 (1996).

**Magnetostrictive Bending of a Film-Substrate System**, P. M. Marcus (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598), *Physical Review B* **53**, No. 5, 2481-2486 (1996).

**Charge Dynamics of Ce-Based Compounds: Connection Between the Mixed Valent and Kondo-Insulator States**, B. Bucher (ETH Zurich, CH-8093 Zurich, Switzerland) et al., *Physical Review B* **53**, No. 6, 2948-2951 (1996).

**Al on Si(111): Phase-Diagram and Atomic Mechanisms**, T. Michely (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Physical Review B* **53**, No. 7, 4105-4108 (1996).

**Magnetic Anisotropy of Glide Distorted FCC and of BCC Ultrathin Fe/Cu(001) Films**, D. E. Fowler (IBM Corporation, 650 Harry Road, San Jose, CA 95120) and J. V. Barth, *Physical Review B* **53**, No. 9, 5563-5569 (1996).

**Monte Carlo Simulation of Hard Core Bosons on a Three-Dimensional Lattice**, M. H. Pedersen (IBM Corporation, Säumerstrasse 4, 8803 Rüschlikon, Switzerland) and T. Schneider, *Physical Review B* **53**, No. 9, 5826-5829 (1996).

**Effective-Mass Anisotropy of  $\text{HgBa}_2\text{Ca}_3\text{Cu}_4\text{O}_{10}$  Measured on a Microcrystal by Means of Miniaturized Torque Magnetometry**, D. Zech (University of Zurich, CH-8057 Zurich, Switzerland) et al., *Physical Review B* **53**, No. 10, 6026-6029 (1996).

**Bending of a Film-Substrate System by Epitaxy**, P. M. Marcus (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598), *Physical Review B* **53**, No. 11, 7460-7465 (1996).

**Ab Initio Molecular-Dynamics Study of Diffusion and Defects in Solid  $\text{Li}_3\text{N}$** , J. Sarnthein (Technical University of Vienna, A-1060 Vienna, Austria) et al., *Physical Review B* **53**, No. 14, 9084-9091 (1996).

**Detailed Theoretical Photoelectron Angular Distributions for  $\text{LiF}(100)$** , E. L. Shirley (NIST, Gaithersburg, MD 20899) et al., *Physical Review B* **53**, No. 15, 296-309 (1996).

**Accommodation of Vortices to Columnar Defects: Evidence for Large Entropic Reduction of Vortex Localization**, L. Krusin-Elbaum (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Physical Review B* **53**, No. 17, 1744-1750 (1996).

- First Principles Molecular-Dynamics Simulations for Neutral P-Chloranil and Its Radical Anion**, C. Katan (University of Rennes 1, Campus Beaulieu, F-35042 Rennes, France) et al., *Physical Review B* **53**, No. 18, 2112–2120 (1996).
- Exchange Stiffness, Magnetization, and Spin-Waves in Cubic and Hexagonal Phases of Cobalt**, X. Liu (Ohio State University, Columbus, OH 43210) et al., *Physical Review B* **53**, No. 18, 2166–2172 (1996).
- Length Dependence of Quantized Conductance in Ballistic Constrictions Fabricated on InAs/AlSb Quantum Wells**, S. J. Koester (University of California, Santa Barbara, CA 93106) et al., *Physical Review B* **53**, No. 19, 3063–3073 (1996).
- Measurement of the Polarization Transfer Parameter  $D_{NV}$  for  $^{12,13}\text{C}(\bar{p}, \bar{p})$  at 500 MeV**, G. W. Hoffmann (University of Texas, Austin, TX 78712) et al., *Physical Review C* **53**, No. 4, 1974–1976 (1996).
- Visualization of the Local Contribution to the Nodal Surface of a Many-Fermion Wave Function**, A. C. Calder (Vanderbilt University, Nashville, TN 37235) et al., *Physical Review E* **53**, No. 5, 5450–5460 (1996).
- Spinodal Decomposition in Fluids: Diffusive, Viscous, and Inertial Regimes**, T. Lookman (University of Western Ontario, London, Ontario N6A 5B7, Canada) et al., *Physical Review E* **53**, No. 5, 5513–5516 (1996).
- Observation of a Two-Stage Melting Transition in Two Dimensions**, K. Bagchi (Stanford University, Stanford, CA 94305) et al., *Physical Review Letters* **53**, No. 4, 3794–3803 (1996).
- Direct Imaging of Integer and Half-Integer Josephson Vortices in High- $T_c$  Grain Boundaries**, J. R. Kirtley (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Physical Review Letters* **76**, No. 8, 1336–1339 (1996).
- One-Step and Two-Step Description of Deexcitation Processes in Weakly Interacting Systems**, O. Karis (University of Uppsala, Box 530, S-75121 Uppsala, Sweden) et al., *Physical Review Letters* **76**, No. 8, 1380–1383 (1996).
- Directed Surfaces in Disordered Media**, A. L. Barabasi (University of Notre Dame, Notre Dame, IN 46556) et al., *Physical Review Letters* **76**, No. 9, 1481–1484 (1996).
- Separating Thermal, Electronic, and Topographic Effects in Pulsed-Laser Melting and Sputtering of Gold**, T. D. Bennett (University of California, Berkeley, CA 94720) et al., *Physical Review Letters* **76**, No. 10, 1659–1662 (1996).
- Self-Organization in Growth of Quantum Dot Superlattices**, J. Tersoff (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Physical Review Letters* **76**, No. 10, 1675–1678 (1996).
- Core-Hole Effects in Resonant Inelastic X-ray Scattering of Graphite**, J. A. Carlisle (Lawrence Livermore National Laboratory, Livermore, CA 94551) et al., *Physical Review Letters* **76**, No. 10, 1762 (1996).
- Multivalley Electron Population Dynamics on the Ge(111): As Surface**, A. Rettenberger (University Konstanz, Postfach 5560, D-78434 Constance, Germany) and R. Haight, *Physical Review Letters* **76**, No. 11, 1912–1915 (1996).
- Morphology-Induced Oscillations of the Magnetic Anisotropy in Ultrathin Co Films**, W. Weber (IBM Corporation, Säumerstrasse 4, 8803 Rorschlikon, Switzerland) et al., *Physical Review Letters* **76**, No. 11, 1940–1943 (1996).
- Observation of Superradiant and Subradiant Spontaneous Emission of Two Trapped Ions**, R. G. DeVoe (IBM Corporation, 650 Harry Road, San Jose, CA 95120) and R. G. Brewer, *Physical Review Letters* **76**, No. 12, 2049–2052 (1996).
- Dynamics in the  $S = 1$  One-Dimensional Antiferromagnet  $\text{AgVP}_2\text{S}_6$  Via P-31 and V-51 NMR**, M. Takigawa (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Physical Review Letters* **76**, No. 12, 2173–2176 (1996).
- Observed Surface-Energy Effects in Confined Diblock Copolymers**, G. J. Kellogg (Massachusetts Institute of Technology, Cambridge, MA 02139) et al., *Physical Review Letters* **76**, No. 14, 2503–2506 (1996).
- Polyne Ring Nucleus Growth-Model for Single-Layer Carbon Nanotubes**, C. H. Kiang (California Institute of Technology, Pasadena, CA 91125) and W. A. Goddard, *Physical Review Letters* **76**, No. 14, 2515–2518 (1996).
- Pinning with Controlled Splay Configurations of Columnar Defects Rapid Vortex Motion at Large Angles**, L. Krusin-Elbaum (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Physical Review Letters* **76**, No. 14, 2563–2566 (1996).
- Role of Hydrogen in C and Si(001) Homoepitaxy: Comment**, M. Copel (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and R. M. Tromp, *Physical Review Letters* **76**, No. 14, 2603 (1996).
- Nucleation in Si(001) Homoepitaxial Growth**, W. Theis (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and R. M. Tromp, *Physical Review Letters* **76**, No. 15, 2770–2773 (1996).
- Upper Limit of the Bose-Glass Transition in  $\text{YBa}_2\text{Cu}_3\text{O}_7$  at High-Density of Columnar Defects**, A. V. Samoilov (California Institute of Technology, Pasadena, CA 91125) et al., *Physical Review Letters* **76**, No. 15, 2798–2801 (1996).
- Imaging Hot Electron Emission from Metal Oxide Semiconductor Structures**, M. Mankos (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Physical Review Letters* **76**, No. 17, 3200–3203 (1996).
- Oscillatory Magnetic Anisotropy and Quantum Well States in Cu/Co/Cu(100) Films**, W. Weber (IBM Corporation, Säumerstrasse 4, 8803 Rorschlikon, Switzerland) et al., *Physical Review Letters* **76**, No. 18, 3424–3427 (1996).

**Scalings and Relative Scalings in the Navier-Stokes Turbulence**, N. Z. Cao (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Physical Review Letters* **76**, No. 20, 3711-3714 (1996).

**Invasion Percolation and Global Optimization**, A. L. Barabasi (University of Notre Dame, Notre Dame, IN 46556), *Physical Review Letters* **76**, No. 20, 3750-3753 (1996).

**Phase-Structure of Systems with Multiplicative Noise**, G. Grinstein (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Physical Review Letters* **76**, No. 23, 4376-4379 (1996).

**Quantum Computers: The First Gate Opens**, D. DiVincenzo (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598), *Physics World* **9**, No. 3, 27 (1996).

**Fluoroalkylsilanes in Silica/Fluoropolymer Composites**, J. T. Fields (Franklin Institute, 2020 Bruck Street, Columbus, OH 43207) et al., *Polymer Composites* **17**, No. 2, 242-250 (1996).

**A Visit to the Dresden Frauenkirche**, R. Jalili (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Presence-T* **5**, No. 1, 87-94 (1995).

**A Farey Tree Organization of Locking Regions for Simple Circle Maps**, K. M. Brucks (University of Wisconsin, Milwaukee, WI 53211) and C. Tresser, *Proceedings of the American Mathematical Society* **124**, No. 2, 637-647 (1996).

**OARS: An Order Analysis and Rescheduling System**, J. Ahmadi (IBM Corporation, 11400 Burnet Road, Austin, TX 78758) and D. Tirupati, *Production Planning & Control* **7**, No. 1, 86-95 (1996).

## R

**High-Performance Liquid Chromatography Tandem Mass Spectrometry Identification of Salmon-Calcitonin Degradation Products in Aqueous-Solution Preparations**, L. Silvestro (AMD Intectra GmbH, Königsberger Strasse 1, D-27243 Harpstedt, Germany) and S. R. Savu, *Rapid Communications in Mass Spectrometry* **10**, No. 2, 151-156 (1996).

**Hyperbranched Polyphenylene and Hyperbranched Polyesters: New Soluble, Three-Dimensional, Reactive Polymers**, J. M. J. Frechet (Cornell University, Ithaca, NY 14853) and C. J. Hawker, *Reactive & Functional Polymers* **26**, No. 1-3, 127-136 (1995).

**Scenarios for Future Computers**, T. Selker (IBM Corporation, 650 Harry Road, San Jose, CA 95120), *Recherche* **285**, 26-31 (1996).

**Focusing Properties of Micron Sized Immersion Lenses**, H. Schmid (IBM Corporation, Säumerstrasse 4, 8803 Rorschlikon, Switzerland) et al., *Review of Scientific Instruments* **67**, No. 2, 375-377 (1996).

**Examining Deep Holes by Rocking the Beam in the Scanning Electron Microscope**, O. C. Wells (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598), *Review of Scientific Instruments* **67**, No. 4, 1458-1462 (1996).

**A Remote Center of Motion Robotic Arm for Computer-Assisted Surgery**, B. Eldridge (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Robotica* **14**, 103-109 (1996).

## S

**Isolation, Structure, and Electronic Calculations of the Heterofullerene Salt  $K_6C_{59}N$** , K. Prassides (University of California, Santa Barbara, CA 93106) et al., *Science* **271**, No. 5257, 1833-1835 (1996).

**Molecularly Adsorbed Oxygen Species on Si(111)-(7 × 7): STM-Induced Dissociative Attachment Studies**, R. Martel (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Science* **272**, No. 5260, 385-388 (1996).

**Does Macroscopic Quantum Coherence Occur in Ferritin?**, S. Gider (University of California, Santa Barbara, CA 93106) et al., *Science* **272**, No. 5260, 425-426 (1996).

**Scanning SQUID Microscopy**, M. B. Ketchen (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598), *Science* **272**, No. 5265, 1087 (1996).

**Structural Study of  $SiO_x$  Amorphous Thin-Films by the Grazing Incidence X-ray Scattering ( $GI_xS$ ) Method**, E. Matsubara (Kyoto University, Kyoto 606, Japan) et al., *Science Reports of the Research Institutes Tohoku University Series A* **42**, No. 1, 45-50 (1996).

**Asymptotic Conditional Probabilities: The Unary Case**, A. J. Grove (NEC Research Institute, 4 Independence Way, Princeton, NJ 08540) et al., *SIAM Journal on Computing* **25**, No. 1, 1-51 (1996).

**On the Composition of Zero-Knowledge Proof Systems**, O. Goldreich (Technion Israel Institute of Technology, IL-32000 Haifa, Israel) and H. Krawczyk, *SIAM Journal on Computing* **25**, No. 1, 169-192 (1996).

**Robust Characterizations of Polynomials with Applications to Program Testing**, R. Rubinfeld (Cornell University, Ithaca, NY 14853) and M. Sudan, *SIAM Journal on Computing* **25**, No. 2, 252-271 (1996).

**Optimal Clock Synchronization Under Different Delay Assumptions**, H. Attiya (Technion Israel Institute of Technology, IL-32000 Haifa, Israel) et al., *SIAM Journal on Computing* **25**, No. 2, 369-389 (1996).

**A Characterization of Nonnegative Box-Greedy Matrices**, U. Faigle (University Twente, P.O. Box 217, 7500 AE Enschede, Netherlands) et al., *SIAM Journal on Discrete Mathematics* **9**, No. 1, 1-6 (1996).



**On a Question of Erdos on Subsequence Sums,** D. Coppersmith (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and S. Phillips, *SIAM Journal on Discrete Mathematics* **9**, No. 2, 173-177 (1996).

**Random Walks on Regular and Irregular Graphs,** D. Coppersmith (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *SIAM Journal on Discrete Mathematics* **9**, No. 2, 301-308 (1996).

**A QL Procedure for Computing the Eigenvalues of Complex Symmetrical Tridiagonal Matrices,** J. K. Cullum (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and R. A. Willoughby, *SIAM Journal on Matrix Analysis and Applications* **17**, No. 1, 83-109 (1996).

**Relations Between Galerkin and Norm-Minimizing Iterative Methods for Solving Linear Systems,** J. Cullum (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and A. Greenbaum, *SIAM Journal on Matrix Analysis and Applications* **17**, No. 2, 223-247 (1996).

**Complexity of Bezout Theorem IV. Probability of Success: Extensions,** M. Shub (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and S. Smale, *SIAM Journal on Numerical Analysis* **33**, No. 1, 128-148 (1996).

**Software Reliability Models for Computer Implementations: An Empirical Study,** G. Triantafyllos (IBM Corporation, P.O. Box 950, Poughkeepsie, NY 12601) and S. Vassiliadis, *Software Practice & Experience* **26**, No. 2, 135-164 (1996).

**Evaluation of a CPU Scheduling Mechanism for Multimedia Systems,** L. C. Wolf (IBM Corporation, Vangerowstrasse 18, D-69115 Heidelberg, Germany) et al., *Software Practice & Experience* **26**, No. 4, 375-398 (1996).

**A Finite Number of Subbands,** P. J. Price (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598), *Solid-State Electronics* **39**, No. 5, 653-654 (1996).

**Modeling Effects of Focused Ion-Beams,** F. Stern (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Solid-State Electronics* **40**, 523-525 (1996).

**High- $T_c$  Transistors,** J. Mannhart (IBM Corporation, Säumerstrasse 4, 8803 Rüschlikon, Switzerland), *Superconductor Science & Technology* **9**, No. 2, 49-67 (1996).

**Stationary Properties of High-Critical-Temperature Proximity Effect Josephson Junctions,** K. A. Delin (California Institute of Technology, Pasadena, CA 91109) and A. W. Kleinsasser, *Superconductor Science & Technology* **9**, No. 4, 227-269 (1996).

**High- $T_c$  SQUIDS Fabricated by Inhibiting Ion-Implantation,** Q. Y. Ma (Columbia University, New York, NY 10027) et al., *Superconductor Science & Technology* **9**, No. 4A, 92-95 (1996).

**Adsorption of Co and No on NiO and CoO: A Comparison,** M. Schonnenbeck (Ruhr University, University Strasse 150, D-44780 Bochum, Germany) et al., *Surface Science* **347**, No. 3, 337-345 (1996).

**In-Situ Ultrahigh-Vacuum Transmission Electron-Microscopy Studies of Heteroepitaxial Growth I. Si(001)/Ge,** M. Hammar (Royal Institute of Technology, S-16440 Kista, Sweden) et al., *Surface Science* **349**, No. 2, 129-144 (1996).

**In-Situ TEM Study of the Growth of Ge on Si(111),** F. K. Legoues (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Surface Science* **349**, No. 3, 249-266 (1996).

**Cluster and Band Structure Ab-Initio Calculations on the Adsorption of Co on Acid Sites of the TiO<sub>2</sub>(110) Surface,** G. Pacchioni (University of Milan, Via Venezian 21, I-20133 Milan, Italy) et al., *Surface Science* **350**, No. 1-3, 159-175 (1996).

**Adatom Concentration on GaAs(001) During MBE Annealing,** M. D. Johnson (University of Maryland, College Park, MD 20742) et al., *Surface Science* **350**, No. 1-3, 254-258 (1996).

## T

**On the Computational Complexity of Dynamic Graph Problems,** G. Ramalingam (IBM Corporation, P.O. Box 704, Yorktown Heights, NY 10598) and T. Reps, *Theoretical Computer Science* **158**, No. 1-2, 233-277 (1996).

**Structure and Stability of Self-Assembled Monolayers,** E. Delamarche (IBM Corporation, Säumerstrasse 4, 8803 Rüschlikon, Switzerland) and B. Michel, *Thin Solid Films* **273**, No. 1-2, 54-60 (1996).

**Probe Microscopy of Organics, An Update,** J. E. Frommer (IBM Corporation, 650 Harry Road, San Jose, CA 95120), *Thin Solid Films* **273**, No. 1-2, 112-115 (1996).

**Instrumental Developments and Recent Experiments in Near-Field Optical Microscopy,** H. Heinzelmann (University of Basel, Klingelbergstrasse 82, CH-4056 Basel, Switzerland) et al., *Thin Solid Films* **273**, No. 1-2, 149-153 (1996).

**Radiation Coupling and Image Formation in Scanning Near-Field Optical Microscopy,** D. W. Pohl (IBM Corporation, Säumerstrasse 4, 8803 Rüschlikon, Switzerland) et al., *Thin Solid Films* **273**, No. 1-2, 161-167 (1996).

**Neuronal Networks for Induced 40-Hz Rhythms,** J. G. Jefferys (University of Birmingham, Birmingham B15 2TT, W. Midlands, England) et al., *Trends in Neurosciences* **19**, No. 5, 202-208 (1996).

## U

**Application of the Ionless Tripod Polisher to the Preparation of YbCo Superconducting Multilayer and Bulk Ceramics Thin-Films,** J. Ayache (CSNSM, Batiment 108, F-91405 Orsay, France) and P. H. Albarede, *Ultramicroscopy* **60**, No. 2, 195-206 (1995).

## V

**Superscalar RISC Machines, Straight-Line Programs, and Graphics,** C. Narayanaswami (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598), *Visual Computer* **12**, No. 3, 117-131 (1996).

**A Parallel Polygon-Clipping Algorithm**, C. Narayanaswami  
(IBM Corporation, P.O. Box 218, Yorktown Heights, NY  
10598), *Visual Computer* **12**, No. 3, 147-158 (1996).

**Homogeneous Bounding Boxes as Tools for Intersection  
Algorithms of Rational Bezier Curves and Surfaces**,  
A. Yamada (IBM Japan Ltd., 1623-14 Shimotsuruma, Yamato,  
Kanagawa 242, Japan) and F. Yamaguchi, *Visual Computer* **12**,  
No. 3, 202-214 (1996).