Part III

Activity Data
Publications

Appeared

Books and Book Chapters


In Refereed Journals

13. H. Fowler, J. Devaney and J. Hagedorn, “Growth Model for Filamentary Streamers in an Ambient Field,” *IEEE Transactions on Dielectrics and Electrical Insulation* 10 No. 1 (February 2003), pp. 73-79.


**In Conference Proceedings**


Technical Reports


Accepted


88    Math & Computational Sciences Division


Submitted

24. S. Satterfield, Quicktime video of the Smart Gel immersive visualization demo, SC2003.

**In Process**

1. I. Beichl, M. Robinson, D. Song, and F. Sullivan, “A Quantum Algorithm for Determining if a Function is One to One.”
5. T.J. Burns and T.L. Schmitz, “Receptance Coupling Analysis for Prediction of Tool-Point Frequency Response.”
11. F. Hunt, “Sample Path Optimality for a Markov Optimization Problem.”

**Visualizations Published**


**Presentations**

**Invited Talks**

13. F. Hunt, “An Introduction to Genetic Sequence Alignment” Mathematical Association of America New Jersey Section, Fairleigh Dickinson University, Newark, NJ, October 26, 2002.
14. F. Hunt, “Progress on a Linear Program Based Algorithm for Multiple Sequence Alignment,” Bioinformatics Institute and Mathematics Department of the University of Maryland, Baltimore County, February 13, 2003.

Conference Presentations


Software Released

5. OOMMF, version 1.2.0.3, October 30, 2002 (M. Donahue and D. Porter).
6. PHAML, version 0.9, March 2003 (W. Mitchell).

Conferences, Minisymposia, Lecture Series, Short-courses

MCSD Seminar Series


DLMF Seminar Series


Local Events Organized


External Event Organization

5. A. Carasso, Co-organizer, Mini-symposium, SIAM Image Science Conference, Salt Lake City, May 2004. The mini-symposium, which will focus on the loss and recovery of fine structure in image processing, will feature eight speakers in two sessions.

Other Professional Activities

Internal

1. R. Boisvert and J. Bernal, Members, ITL Diversity Committee.
2. R. Boisvert, Member, NIST People Council.
3. A. Dienstfrey, Member, NIST Research Advisory Committee.
4. A. Kearsley, Chair, MCSD Seminar Series.
5. A. O’Gallagher, Member, ITL Awards Committee.
6. B. Rust, Member, NIST Research Library Advisory Board.

External

Editorial

1. B. Alpert, Associate Editor, SIAM Journal on Scientific Computing.
2. I. Beichl, Member, Editorial Board, IEEE Computing in Science and Engineering.
3. I. Beichl, Associate Editor, Applied Numerical Analysis & Computational Mathematics
4. R. Boisvert, Editor-in-Chief, ACM Transactions on Mathematical Software.
7. G. McFadden, Associate Editor, Journal of Crystal Growth.
8. G. McFadden, Associate Editor, Interfaces and Free Boundaries.
9. G. McFadden, Associate Editor, SIAM Journal on Applied Mathematics.
10. W. Mitchell, Associate Editor, Applied Numerical Analysis & Computational Mathematics
13. D.P. O’Leary, Associate Editor, Linear Algebra and Its Applications.
16. D. Lozier, Associate Editor, Mathematics of Computation.
17. R. Pozo, Associated Editor, ACM Transactions on Mathematical Software.

Boards and Committees

1. R. Boisvert, Vice-Chair, ACM Publications Board.
2. R. Boisvert, Member, Ad-hoc Search Committee for Editor-in-Chief, ACM Transactions on Modeling and Computer Simulation (TOMACS).
3. R. Boisvert, Member, Ad-hoc Search Committee for Editor-in-Chief, ACM Journal of Experimental Algorithmics.
4. R. Boisvert, Member, Ad-hoc Search Committee for Editor-in-Chief, Journal of the ACM.
5. R. Boisvert, Member, Ad-hoc Search Committee for Editor-in-Chief, ACM Transactions on Design Automation for Electronic Systems.
7. J. Devaney, NIST Representative, High End Computing Group, National Coordination Office for Information Technology Research and Development.
8. J. Devaney, Task Co-Chair, High-End Computing Revitalization Task Force.
9. F. Hunt, Member, Executive Board, Association for Women in Mathematics.
10. S. Langer, Member, Ph.D. Thesis Committee, Department of Materials Science and Engineering, MIT.
11. D. Lozier, Chair, SIAM Activity Group on Orthogonal Polynomials and Special Functions.
12. D. Porter, Member, Tcl Core Team.
13. B. Saunders, Member, External Advisory Council, School of Computer, Mathematical and Natural Sciences, Morgan State University.

Reviewing

2. Staff members review proposals for the following research programs: NIST ATP, DOE, NSF, EPSRC (UK).

External Contacts

MCSD staff members make contact with a wide variety of organizations in the course of their work. Examples of these follow.

Industrial Labs

<table>
<thead>
<tr>
<th>ADI Limited</th>
<th>Ball Aerospace</th>
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<tbody>
<tr>
<td>ARINC</td>
<td>Cadence Design Systems</td>
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<tr>
<td>Atrenta, Inc.</td>
<td>Certegy Card Services</td>
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</tbody>
</table>
Coreco Imaging, Inc.  
Delta Add-Power Systems  
Electronic Arts  
Eastman Kodak Co.  
Fakespace Systems  
Ford Motor Company  
Harris Corporation  
High Performance Computing Center (Germany)  
Inetcam Inc.  
Intel Corporation  
Legerity  
Lehman Brothers  
Lucent Technologies  
Mentor Graphics  

Government/Non-profit Organizations

Brookhaven National Lab  
Department of Defense (DoD)  
Federal Bureau of Investigation  
Georgia Tech. Research Institute  
Institute for Defense Analyses  
Jet Propulsion Laboratory  
Los Alamos National Laboratory  
National Institutes of Health (NIH)  
National Library of Medicine  
Naval Research Laboratory  
Sandia Laboratory  
Sandia Livermore Laboratory  
U.S. Army Soldier Biological Chemical Command

Universities

American University  
Bowie State University  
Brown University  
Carnegie Mellon University  
Chinese Academy of Sciences  
City University of New York  
Duke University  
Emory University  
George Mason University  
Georgetown University  
Indiana University  
King Faisal University (Saudi Arabia)  
Louisiana Tech University  
Massachusetts Institute of Technology  
Morehouse College  
Norfolk State University  
North Carolina A&T University  
Northwestern University  
Oregon State University  
Pennsylvania State University  
Rensselaer Polytechnic Institute  
Rice University  
Spelman College  
Stanford University  
St. Olaf College  
Technion (Israel)  
Temple University  
The College of William and Mary  
Tougaloo College  
Trinity College  
Universidad Nacional Autonoma de Mexico  
University of Arizona  
University of Bretagne (France)  
University of California – Los Angeles  
University of California – San Diego  
University of Colorado  
University of Florida  
University of Maryland  
University of Nebraska  
University of Newcastle Medical School (UK)  
University of New Mexico  
University of North Carolina  
University of Southampton (UK)  
University of South Carolina  
University of Trieste (Italy)  
University of Utah  
University of Wisconsin  
Xavier University