SUPERCOMPUTING '96 CONFERENCE PROCEEDINGS

THE INTERNATIONAL CONFERENCE ON HIGH PERFORMANCE COMPUTING AND COMMUNICATIONS

NOVEMBER 17–22
PITTSBURGH PA

SPONSORS

ACM SIGARCH

IEEE COMPUTER SOCIETY

Conference sponsored by ACM SIGARCH and IEEE Computer Society

WELCOME   USER INSTRUCTIONS   TABLE OF CONTENTS • TOC   SC97 CALL FOR PARTICIPATION

Welcome to SUPERCOMPUTING '96

On behalf of the SC'96 Executive Conference Committee I wish you a hearty welcome to the ninth in this series of conferences. This year's program is focused around the theme "Computers at Work," and you will be able to obtain a wealth of information on the latest developments in the application of high performance computing and communications technologies. Everyone recognizes that the use of these technologies in the industrial and commercial sector will be critical to its continued vitality. We have organized a superb technical program that is captured in these proceedings. In addition to attending the technical papers, tutorials, roundtables and panel discussions, exhibitor forum, and posters, you should take time to visit the exciting industry and research exhibit area which is centrally located within the Convention Center.

Each day will start with a featured plenary speaker. These speakers are well-known in the field and will undoubtably have interesting, thought-provoking and challenging remarks. One session you won't want to miss is the Awards Session on Thursday afternoon. Several people will be honored at this session, and the featured speaker is Erich Bloch of the Council on Competitiveness.

The networking component of this annual conference increases in importance and complexity each year. SCinet, the on-site network designed and built especially for these conferences, vividly demonstrates the role that high-performance computing and communications technologies have played and will continue to play in the economic development of the nation. This year the networking infrastructure includes a global wide area applications testbed, a commodity network and a high speed network.

The Education Program extends the conference theme to "Computers at Work in the Classroom" to focus on the program's emphasis on presenting successful classroom applications of high performance computing and communications (HPCC) technology. The goal of the program is to establish a collegial environment where teaching professionals present strategies and classroom management practices that have made their use of computational science and communications technologies an integral part of their teaching. Sessions for teachers will be presented Sunday through Tuesday.

And, we will use some time to "network" on a personal basis. We will again have an Opening Reception on Monday night, a poster reception for technical attendees on Wednesday and the Conference Reception at the Carnegie Science Center on Thursday evening.

Pittsburgh is looking forward to hosting this conference. The local officials have extended their welcome and invite you to explore the many attractions, from the new Regional History Center and the Andy Warhol Museum, to the numerous shops and eateries within a few blocks of the Convention Center. You may know Pittsburgh as home to the Pittsburgh Steelers, Pirates and Penguins, but Pittsburgh is also a high-tech city, and the residents are looking forward to showing you the hospitality of the area.

We are glad you are here at SC'96 -- to renew old acquaintenances and make new ones, to renew and update your storehouse of knowledge, and to renew your spirit with the opportunity to combine your interest in technologies with the chance to visit the many interesting attractions in the Pittsburgh area. The conference committee stands ready to provide any assistance you need before, during or after the conference.

Beverly Clayton

General Chair
Supercomputing '96

TABLE OF CONTENTS

TALKS

- **Sessions**
- **Authors**
- **Titles**
- **Abstracts**
- **Keyword Index**

EXHIBITS

- **Research Exhibit:** Abstracts
- **Poster Exhibits:** Abstracts
- **Industry Exhibit:** Listing

EDUCATION PROGRAM

- **K-12 Teacher Workshops and Hands-on Labs:** Titles and Abstracts
- **Education Papers:** Titles and Abstracts
- **Education Panels:** Titles and Abstracts
- **Education Roundtable:** Title and Abstract

OTHER PROGRAM ELEMENTS

- **Tutorials:** Abstracts
- **Invited Speakers:** Abstracts
- **Panels & Roundtables:** Abstracts
- **High Performance Computing Challenge:** Entries
- **Recognition of the 50th Anniversaries of the** ACM **and the** IEEE Computer Society
- **Gordon Bell Prize and Fernbach Award**

SC96 COMMITTEES

- Executive Committee
- Technical Papers & Invited Speakers Committee
- Steering Committee
- Tutorial Committee
- Education Committee

SC97 CALL FOR PARTICIPATION

- Call for SC'97

HOME

Tuesday 10:30

[Room S2/S4] Biology Applications   Abstracts

1. [Parallel Hierarchical Molecular Structure Estimation](#)   **Cheng Che Chen**, Jaswinder Pal Singh, Russ B. Altman
2. [A Data-Parallel Implementation of *O(N)* Hierarchical *N*-body Methods](#)   **Yu Hu**, S. Lennart Johnsson
3. [The Design of a Portable Scientific Tool: A Case Studing Using SnB](#)   **Steven M. Gallo**, Russ Miller, Charles M. Weeks

[Room S6/S8] Performance I   Abstracts

1. NOMINATED STUDENT PAPER AWARD [Runtime Performance of Parallel Array Assignment: An Empirical Study](#)   **Lei Wang**, James M. Stichnoth, Siddhartha Chatterjee
2. [ScaLAPACK: A Portable Linear Algebra Library for Distributed Memory Computers - Design Issues and Performance](#)   **Laura Susan Blackford**, J. Choi, A. Cleary, A. Petitet, R. C. Whaley, J. Demmel, I. Dhillon, K. Stanley, J. Dongarra, S. Hammarling, G. Henry, D. Walker
3. [Network Performance Modeling for PVM Clusters](#)   **Mark J. Clement**, Michael R. Steed, Phyllis E. Crandall

Tuesday 1:30

[Room S2/S4] Visualization & Education   Abstracts

1. NOMINATED STUDENT PAPER AWARD [Scalable Parallel Algorithms for Interactive Visualization of Curved Surfaces](#)   **Subodh Kumar**, Chun-Fa Chang, Dinesh Manocha
2. [STREN: A Highly Scalable Parallel Stereo Terrain Renderer for Planetary Mission Simulations](#)   **Ansel Teng**, Scott Whitman, Meemong Lee
3. [Education in High Performance Computing via the WWW: Designing and Using Technical Materials Effectively](#)   **Susan Mehringer**

[Room S6/S8] Compiler Analysis Abstracts

1. [Compiler-directed Shared-Memory Communication for Iterative Parallel Applications](#) **Guhan Viswanathan**, James R. Larus
2. [Dynamic Data Distribution with Control Flow Analysis](#) **Jordi Garcia**, Eduard Ayguade, Jesus Labarta
3. NOMINATED STUDENT PAPER AWARD [Transformations for Imperfectly Nested Loops](#) **Induprakas Kodukula**, Keshav Pingali

Tuesday 3:30

[Room S2/S4] Geophysical Applications Abstracts

1. [Earthquake Ground Motion Modeling on Parallel Computers](#) Hesheng Bao, Jacobo Bielak, **Omar Ghattas**, Loukas F. Kallivokas, David R. O'Hallaron, Jonathan R. Shewchuk, Jifeng Xu
2. [Performance Analysis and Optimization on the UCLA Parallel Atmospheric General Circulation Model Code](#) **John Lou**, John Farrara
3. [Climate Data Assimilation on a Massively Parallel Supercomputer](#) **Hong Q. Ding**, Robert D. Ferraro

[Room S6/S8] Tools Abstracts

1. [Performance Analysis Using the MIPS R10000 Performance Counters](#) **Marco Zagha**, Brond Larson, Steve Turner, Marty Itzkowitz
2. [Profiling a Parallel Language Based on Fine-Grained Communication](#) Bjoern Haake, **Klaus E. Schauser**, Chris Scheiman
3. [Modeling, Evaluation, and Testing of Paradyn Instrumentation System](#) **Abdul Waheed**, Diane T. Rover, Jeffrey K. Hollingsworth

Wednesday 10:00

[Room S2/S4] Performance II Abstracts

1. [An Analytical Model of the HINT Performance Metric](#) **Quinn O. Snell**, John L. Gustafson
2. NOMINATED STUDENT PAPER AWARD [Communication Patterns and Models in Prism: A Spectral Element-Fourier Parallel Navier-Stokes Solver](#) **Constantinos Evangelinos**, George Em Karniadakis
3. [The C3I Parallel Benchmark Suite - Introduction and Preliminary Results](#) Rakesh Jha, **Richard C. Metzger**, Brian VanVoorst, Luiz S. Pires, Wing Au, Minesh Amin, David A. Castanon, Vipin Kumar

4. [Architecture and Application: The Performance of the NEC SX-4 on the NCAR Benchmark Suite](#) **Steven W. Hammond**, Richard D. Loft, Philip D. Tannenbaum

[Room S6/S8] Networking & Architecture Abstracts

1. [Minimal Adaptive Routing with Limited Injection on Toroidal k-ary n-cubes](#) **Fabrizio Petrini**, Marco Vanneschi
2. [Low-Latency Communication on the IBM RISC System/6000 SP](#) **Chi-Chao Chang**, Grzegorz Czajkowski, Chris Hawblitzel, Thorsten von Eicken
3. [Compiled Communication for All-optical TDM Networks](#) **Xin Yuan**, R. Melhem, R. Gupta
4. NOMINATED STUDENT PAPER AWARD [Increasing the Effective Bandwidth of Complex Memory Systems in Multivector Processors](#) **Anna M. del Corral**, Jose M. Llaberia

Wednesday 1:30

[Room S2/S4] Hydrodynamics Applications

1. [A Parallel Cosmological Hydrodynamics Code](#) **Paul W. Bode**, Guohong Xu, Renyue Cen
2. [Transient Dynamics Simulations: Parallel Algorithms for Contact Detection and Smoothed Particle Hydrodynamics](#) **Steve Plimpton**, Bruce Hendrickson, Steve Attaway, Jeff Swegle, Courtenay Vaughan, Dave Gardner
3. [Performance of a Computational Fluid Dynamics Code on NEC AND Cray Supercomputers: Beyond 10 GIGAFLOPS](#) **Ferhat F. Hatay**

[Room S6/S8] Algorithms I

1. [Parallel Preconditioners for Elliptic PDEs](#) **Vivek Sarin**, Ahmed Sameh
2. [Sparse LU Factorization with Partial Pivoting on Distributed Memory Machines](#) **Cong Fu**, Tao Yang
3. [Implementation of Strassen's Algorithm for Matrix Multiplication](#) Steven Huss-Lederman, **Elaine M. Jacobson**, Jeremy R. Johnson, Anna Tsao, Thomas Turnbull

Wednesday 3:30

[Room S2/S4] Algorithms II

1. [Global Load Balancing with Parallel Mesh Adaption on Distributed-Memory Systems](#) **Rupak Biswas**, Leonid Oliker, Andrew Sohn
2. NOMINATED STUDENT PAPER AWARD [Parallel Hierarchical Solvers and Preconditioners for Boundary Element Methods](#) **Ananth Grama**, Vipin Kumar, Ahmed Sameh

3. [Parallel Multilevel k-way Partitioning Scheme for Irregular Graphs](#) **George Karypis**, Vipin Kumar

[Room S6/S8] Parallel Programming Support

1. [Double Standards: Bringing Task Parallelism to HPF Via the Message Passing Interface](#) **Ian Foster**, David R. Kohr, Jr.,Rakesh Krishnaiyer, Alok Choudhary

2. [OMPI: Optimizing MPI Programs Using Partial Evaluation](#) **Hirotaka Ogawa**, Satoshi Matsuoka
3. [Particle-in-Cell Simulation Codes in High Performance Fortran](#) **Erol Akarsu**, Kivanc Dincer, Tomasz Haupt, Geoffrey C. Fox

---

Thursday 10:00

[Room N1/N6] Sid Fernbach Award Presentation

Established in 1992, the Sid Fernbach Award honors Sidney Fernbach, one of the pioneers in the development and application of high performance computers for the solution of large computational problems, given to "an outstanding contribution in the application of high performance computers using innovative approaches."

The 1996 winner of the Sid Fernbach Award is Dr. Gary A. Glatzmaier, a distinguished physicist in Geophysical Fluid Mechanics at Los Alamos National Laboratory. Dr. Glatzmaier is being recognized for using innovative computational numerical methods to perform the first realistic computer simulation of the Earth's geodynamo and its resultant time-dependent magnetic field.

The awards ceremony is scheduled for 1:30 p.m. Thursday.

Thursday 10:40

[N6/N6] Gordon Bell Finalists

1. [Simulation of the 3 Dimensional Cascade Flow with Numerical Wind Tunnel (NWT)](#) **Takashi Nakamura**, Toshiyuki Iwamiya, Masahiro Yoshida, Yuichi Matsuo, Masahiro Fukuda
2. [N-body Simulation of Galaxy Formation on GRAPE-4 Special-Purpose Computer](#) **Toshiyuki Fukushige**, Junichiro Makino
3. [Electronic Structure of Materials Using Self-Interaction Corrected Density Functional Theory](#) **Adolfy Hoisie**, Stefan Goedecker, Jurg Hutter

[Room S2/S4] Scheduling

1. [Application-Level Scheduling on Distributed Heterogeneous Networks](#) Francine D. Berman, **Rich Wolski**, Silvia Figueira, Jennifer Schopf, Gary Shao
2. [NetSolve: A Network Server for Solving Computational Science Problems](#) Henri Casanova, **Jack Dongarra**
3. [Multimethod Communication for High-performance Metacomputing Applications](#) **Ian Foster**, Jonathan Geisler, Carl Kesselman, Steven Tuecke
4. [Building a World-Wide Virtual Machine Based on Web and HPCC Technologies](#) **Kivanc Dincer**, Geoffrey C. Fox

[Room S6/S8] Data Mining & Modeling

1. [Parallel Data Mining for Association Rules on Shared-memory Multi-processors](#) **M. J. Zaki**, M. Ogihara, S. Parthasarathy, W. Li
2. [Dynamic Computation Migration in DSM Systems](#) **Wilson C. Hsieh**, M. Frans Kaashoek, William E. Weihl

3. [Performance Modeling for the Panda Array I/O Library](#) **Ying Chen**, Marianne Winslett, Szu-wen Kuo, Yong Cho, Mahesh Subramaniam, Kent Seamons
4. [Striping in Disk Array RM2 Enabling the Tolerance of Double Disk Failures](#) Chan-Ik Park, **Tae-Young Choe**

[Room S2/S4] Particle Dynamics

1. [Lightweight Computational Steering of Very Large Scale Molecular Dynamics Simulations](#) **David M. Beazley**, Peter S. Lomdahl
2. [Design of a Large Scale Discrete Element Soil Model for High Performance Computing Systems](#) Alex R. Carrillo, **David A. Horner**, John F. Peters, John E. West
3. [Molecular Simulation of Rheological Properties Using Massively Parallel Supercomputers](#) R. K. Bhupathiraju, S. T. Cui, S. Gupta, H. D. Cochran, **P. T. Cummings**

[Room S6/S8] Data & Scheduling

1. [Virtual Memory Versus File Interfaces for Large, Memory-intensive Scientific Applications](#) **Yoonho Park**, Ridgway Scott, Stuart Sechrest
2. [Impact of Job Mix on Optimizations for Space Sharing Schedulers](#) **Jaspal Subhlok**, Thomas Gross, Takashi Suzuoka

Authors
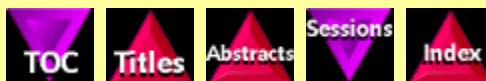
A

Akarsu, Erol
Altman, Russ B.
Amin, Minesh
Attaway, Steve
Au, Wing
Ayguade, Eduard

B

Bao, Hesheng
Beazley, David M.
Berman, Francine D.
Bhupathiraju, R. K.
Bielak, Jacobo
Biswas,Rupak
Blackford, Laura Susan
Bode, Paul W.

C

Carrillo, Alex R.
Casanova, Henri
Castanon, David A.
Cen, Renyue
Chang, Chi-Chao
Chang, Chun-Fa
Chatterjee, Siddhartha
Chen, Cheng Che
Chen, Ying
Cho, Yong
Choe, Tae-Young
Choi, J.
Choudhary, Alok
Cleary, A.
Clement, Mark J.
Cochran, H. D.
Crandall, Phyllis E.
Cui, S. T.
Cummings, Peter T.
Czajkowski, Grzegorz

D

del Corral, Anna M.
Demmel, J.
Dhillon, I.

L

Labarta, Jesus
Larson, Brond
Larus, James R.
Lee, Meemong
Li, W.
Llaberia, Jose M.
Loft, Richard D.
Lomdahl, Peter S.
Lou, John

M

Makino, Junichiro
Manocha, Dinesh
Matsuo, Yuichi
Matsuoka, Satoshi
Mehringer, Susan
Melhem, R.
Metzger, Richard C.
Miller, Russ

N

Nakamura, Takashi

O

Ogawa, Hirotaka
Ogihara, M.
O'Hallaron, David R.
Oliker, Leonid

P

Park, Chan-Ik
Park, Yoonho
Parthasarathy, S.
Peters, John F.
Petitet, A.
Petrini, Fabrizio
Pingali, Keshav
Pires, Luiz S.
Plimpton, Steve

R

Rover, Diane T.

S

Dincer, Kivanc (particle-in-cell) (virtual machine)
Ding, Hong Q.
Dongarra, Jack (linear algebra) (networking)

E
Evangelinos, Constantinos

F
Farrara, John
Ferraro, Robert D.
Figueira, Silvia
Foster, Ian (metacomputing) (task parallelism)
Fox, Geoffrey C. (particle-in-cell) (virtual machine)
Fu, Cong
Fukuda, Masahiro
Fukushige, Toshiyuki

G
Gallo, Steven M.
Garcia, Jordi
Gardner, Dave
Geisler, Jonathan
Ghattas, Omar
Goedecker, Stefan
Grama, Ananth
Gross, Thomas
Gupta, R.
Gupta, S.
Gustafson, John L.

H
Haake, Bjoern
Hammarling, S.
Hammond, Steven W.
Hatay, Ferhat F.
Haupt, Tomasz
Hawblitzel, Chris
Hendrickson, Bruce
Henry, G.
Hoisie, Adolfy
Hollingsworth, Jeffrey K.
Horner, David A.
Hsieh, Wilson
Hu, Yu
Huss-Lederman, Steven
Hutter, Jurg

I

Sameh, Ahmed (parallel preconditioners) (hierarchical solvers)
Sarin, Vivek
Schauser, Klaus E.
Scheiman, Chris
Schopf, Jennifer
Scott, Ridgway
Seamons, Kent
Sechrest, Stuart
Shao, Gary
Shewchuk, Jonathan R.
Singh, Jaswinder Pal
Snell, Quinn O.
Sohn, Andrew
Stanley, K.
Steed, Michael R.
Stichnoth, James M.
Subhlok, Jaspal
Subramaniam, Mahesh
Suzuoka, Takashi
Swegle, Jeff

T
Tannenbaum, Philip D.
Teng, Ansel
Tsao, Anna
Tuecke, Steven
Turnbull, Thomas
Turner, Steve

V
Vanneschi, Marco
VanVoorst, Brian
Vaughan, Courtenay
Viswanathan, Guhan
von Eicken, Thorsten

W
Waheed, Abdul
Walker, D.
Wang, Lei
Weeks, Charles M.
Weihl, William E.
West, John E.
Whaley, R. C.
Whitman, Scott
Winslett, Marianne
Wolski, Rich

X
Xu, Guohong

HOME

Conference Chair, Beverly C. Clayton
Pittsburgh Supercomputing Center

Conference Vice Chair, Jim Kasdorf
Westinghouse Electric Corporation

Deputy Conference Chair, Supercomputing '97 Chair, Dona Crawford
Sandia National Laboratories

Program Chair, Bill Buzbee
National Center for Atmospheric Research

Deputy Program Chair, Margaret L. Simmons
NCO/HPCC

Technical Papers & Invited Speakers Chair, Sally Haerer
National Center for Atmospheric Research

Technical Sessions Chair, Joan Francioni
University of Southwestern Louisiana

Tutorials Chair, Joanne Martin
IBM Corporation

Tutorials Vice Chair, Rajeev Thakur
Argonne National Laboratory

Education Program Chair, Margo Berg
MJB Consulting Office

Research Exhibits Co-Chair, Jeff Huskamp
Ohio Supercomputer Center

Research Exhibits Co-Chair, Betsy Schermerhorn
Fermilab

Chair for Invited Panels and Awards, C. Edward Oliver
Oak Ridge National Laboratory

Roundtables Chair, John Riganati
David Sarnoff Research Center

Posters Chair, Mary Jane Irwin
Pennsylvania State University

Proceedings, Dan Dwyer
Cornell Theory Center

High Performance Computing Challenge, Bill Kramer
National Energy Research Supercomputing Center
Lawrence Berkeley National Laboratory

Exhibits Chair, Dennis Duke
San Diego Supercomputer Center

Exhibits Management, Don Collier
DC Expositions, Inc.

Exhibits Contractor, Darryl Monahan
GES Exposition Services

Space Coordinator, Lynn Layman
Westinghouse Electric Corporation

Local Arrangements Chair, Committee Coordination Chair, Elvira Prologo
Pittsburgh Supercomputing Center

Audio/Visual Chair, Rob Brown
Westinghouse Electric Corporation

Finance Chair, Ray Elliott

Registration Chair, Kimberly Iles
Ilesnet Design

Conference Computing Equipment Chair, Steve Karwoski
Frederick Biomedical Supercomputing Center

Student Volunteers Co-Chair, Michael McCarthy
University of Pittsburgh

Student Volunteers Co-Chair, George A. Novacky, Jr.
University of Pittsburgh

Special Project Chair, Mary Lou Soffa
University of Pittsburgh

Conference Store, Gayle M. Elliott

Networking Chair, Steve Wolff
Cisco Systems

Networking Vice Chair, Wendy Huntoon
Pittsburgh Supercomputing Center

Publicity Chair, Vivian M. Benton
Pittsburgh Supercomputing Center

Signage, Louis H. Turcotte
USAE Waterways Experiment Station

Database Coordinator, Ann Redelfs
San Diego Supercomputer Center

IEEE Computer Society Liaison, Anne Marie Kelly
IEEE Computer Society

ACM Liaison, Lisette Burgos
ACM

TOC   HOME

Robert Borchers
National Science Foundation

Bill Buzbee
National Center for Atmospheric Research

Beverly Clayton
Pittsburgh Supercomputing Center

Dona L. Crawford
Sandia National Laboratory

Dennis Duke
San Diego Supercomputer Center

Anne Hayes
Los Alamos National Laboratory

Mary Jane Irwin
Penn State University

Sid Karin
University of California, San Diego

Michael Levine
Pittsburgh Supercomputing Center

George Michael
Lawrence Livermore National Laboratory

C. Edward Oliver
Oak Ridge National Laboratory

Cherri Pancake
Oregon State University

Dan Pryor
Supercomputing Research Center

John Riganati
David Sarnoff Research Center

Ralph Roskies
Pittsburgh Supercomputing Center

Paul Schneck
The MITRE Corporation

Robert G. Voigt
National Science Foundation

Anne Marie Kelly
IEEE Computer Society, SC'96 co-sponsor

Lisette Burgos
ACM, SC'96 co-sponsor

Anne Marie Kelly
IEEE Computer Society, SC'96 co-sponsor

Lisette Burgos
ACM, SC'96 co-sponsor

Joanne Martin, Chair
IBM Corporation

Paul Messina
California Institute of Technology

Rajeev Thakur, Vice-Chair
Argonne National Laboratory

Guylaine Pollock
Sandia National Laboratories

Alok Choudhary
Northwestern University

Sanjay Ranka
University of Florida

Peter Corbett
IBM T. J. Watson Research Center

John Riganati
David Sarnoff Research Center

Geoffrey Fox
Syracuse University

Brad Rullman
Intel Corporation

Charles Koelbel
Rice University

Margaret Simmons
National Coordination Office for HPCC

David Kotz
Dartmouth College

Rick Stevens
Argonne National Laboratory

Allen Malony
University of Oregon

Louis Turcotte
USAE Waterways Experiment Station

Piyush Mehrotra
ICASE

Margo Berg, Chair
MJB Consulting Office

Gypsy Abbott
University of Alabama at Birmingham

Paula Avery
Moriarty High School, Moriarty, NM

E. Kenneth Beckwith
Whitesboro High School, Marcy, NY

Ginger Caldwell
National Center for Atmospheric Research

Wally Feurzeig
Educational Technologies, BBN

Edna E. Gentry
ASPIRE, University of Alabama in
Huntsville

Jill Snyder
New Mexico Adventures in Supercomputing (AiS)

Barbara G. Summers
Oak Ridge National Laboratory

Chuck Swanson
Cray Research

Umesh Thakkar
National Center for Supercomputing Applications

Dave Thomas
Montana State University

Mary Ellen Verona
Maryland Virtual High School of Science and
Mathematics

Mark L. Walker
The Ellis School, Pittsburgh, PA

TOC   HOME

SAN JOSE SC97 NOV. 15-21

Call for Participation

SC97: High Performance Networking and Computing will be held at the convention center in San Jose, California, USA, November 15-21, 1997. This year marks the first use of SC97 as the name of the annual conference you've known as Supercomputing 'XY. This change reflects our growing attention to networking, distributed computing, data-intensive applications, and other emerging technologies that push the frontiers of communications and computing. SC97 is the tenth in this series and is sponsored by ACM SIGARCH and the IEEE Computer Society.

Participants are invited to contribute to the following technical program elements:

Technical Papers
Tutorials
Education Session
Research Exhibits
Poster Exhibits
SCinet97
High Performance Computing Challenge

Other components of SC97 include:

Keynote Address
Invited Presentations and Panels
Industry Exhibits
Presentations of the Fernbach, Best Paper, and Best Student Paper Awards
Co-location with IOPADS

What's New At SC97

The Latest Developments. SC97 will demonstrate the latest developments in high performance communications and computing technology and its application to solving the most complex and important scientific problems facing the world. Be a part of this year's conference!

The Opportunity to Present More Timely Results. To allow for the presentation of more timely results, we are soliciting technical papers through extended abstracts. Authors of accepted papers must submit full final papers for inclusion in the conference proceedings. The top 5-10 papers will be published in a peer-reviewed journal.

A New Type of Technical Track: Survey Talks. Invited speakers will be asked to describe the current state of work in their field, propose questions, and pose problems that specialists in other areas might be able to solve that would advance their work. The target audience for each speaker will be technical experts in areas outside that of the speaker, with the explicit goal of conveying ideas, results, and needs at a level they can understand and appreciate.

An Innovative New Computing Challenge. The SC97 High Performance Computing Challenge will be a race to solve a known hard cryptographic problem at the conference using the networking and computing resources available on the exhibit floor and through the SCinet97 Internet connection.

Enhanced awards for the SC97 Best Paper and Best Student Paper. Awards have been given in the past for the Best Paper and Best Student Paper, in addition to Best Papers within various categories. At SC97, the Best Paper overall will receive a $1,000 award and the Best Student Paper will receive $500. Announcements about Best Papers awards will be made at SC97 in conjunction with the announcement of the Fernbach Award.

A Prime Location--Silicon Valley. Never before has SCXY met in Silicon Valley, home to more than 3,600 high-technology companies employing more than 208,000 people--many of whom will participate in SC97. The Santa Clara Valley, known as Silicon Valley, has become a dominant force in the development of electronics, semiconductor devices, computer systems, and software. The area is a magnet for the best and the brightest researchers, engineers, and entrepreneurs--and now it has attracted SC97!

IOPADS 97--Input/Output in Parallel and Distributed Systems. IOPADS 97 will be co-located at SC97 on Monday November 17, 1997. IOPADS brings together researchers in all aspects of parallel and distributed I/O, architecture, algorithms, applications, file and operating systems, and compilers and runtime systems. IOPADS gathers interested researchers from all areas of computer science, encouraging cross-disciplinary interaction. See http://www.cs.dartmouth.edu/iopads

Information for All Contributors

Because of the dynamic nature of the WWW, any updates and frequently asked questions about this Call for Participation will be posted to http://www.supercomp.org/sc97/ Please check the WWW before you prepare your proposal for SC97.

All proposals must be submitted via the WWW, at http://www.supercomp.org/sc97/submissions/, where you will find WWW templates to help you with your proposal. Some assistance is available for those unfamiliar with the WWW. All proposals must be submitted in English.

In addition, we have simplified the e-mail addresses for SC97 committees--for example, you can write to posters97@mail.supercomp.org, hpcc97@mail.supercomp.org, etc. General questions should be directed to sc97@mail.supercomp.org

Technical Papers

Deadline for extended abstracts: May 16, 1997

Technical papers reporting results and experiences related to high performance networking and computing are solicited for presentation at SC97. Topics for consideration include:

Local and Wide Area Networking
Data and Computationally Intensive Applications
Scalable Architectures
System Interconnection Networks and Technologies
High Performance Input/Output
Parallel and Distributed Algorithms
Program Environment and Tools
Performance Measurement and Analysis
Visualization
Collaboration

Acceptance for publication and presentation will be based upon program committee review of extended abstracts. Special emphasis will be placed on submissions that demonstrate timely results, technologies, or experiences that are most likely to have impact on the productive use of high performance networked computing systems.

In assembling a technical program of the highest quality, the program committee will review each submission and select papers based on originality, timeliness, relevance, and clarity.

Each selected contributor will be given 30 minutes at SC97 to present his or her paper. Authors may use electronic materials for their presentations based on guidelines from the program committee.

Deadline and Format Information

In response to community requests to permit greater timeliness of reported results, acceptance for publication and presentation will be based upon program committee review of extended abstracts. The deadline for submission of extended abstracts is May 16, 1997. Extended abstracts must be submitted via the WWW. Abstracts received via fax will not be considered. We encourage abstracts to include a URL pointing to more information, if possible.

The authors of accepted extended abstracts will be notified by June 16, 1997. These authors will be required to submit a full final paper for inclusion in the conference proceedings by August 15, 1997. Because of this new "just in time" process, authors who fail to meet this deadline will have their submission and opportunity for presentation withdrawn. All accepted final papers must follow the official HTML 3.2 specification. Embedded Java applets are also acceptable.

Survey Talks

In this new type of talk at SC97, invited speakers will be asked to describe the current state of work in their field, propose questions, and pose problems that specialists in other areas might be able to solve that would advance their work. The target audience for each speaker will be technical experts in areas outside that of the speaker, with the explicit goal of conveying ideas, results, and needs at a level they can understand and appreciate. In planning this track, the program committee would like to know what topic areas would generate the most interest. Recommendations for topics should be sent to the Survey Talks Chair, James R. McGraw (jmcgraw@llnl.gov).

Publication

Accepted final papers meeting deadline and format requirements will appear on the SC97 Proceedings CD-ROM, and on the WWW. In addition, a small number of the best papers (as deemed by the program

committee) will be published in a peer-reviewed journal.

Best Paper Awards

Awards for best papers will be announced during SC97. The best conference paper will receive an award of $1,000. The best paper with a student as principal author will receive an award of $500.

How to Submit an Extended Abstract

Extended abstracts of technical papers must include:

- Descriptive title for the proposed paper

- Name, telephone number, postal and e-mail address of each author

- If the principal authors are students, indicate "Student Paper"

- Abstract body of fewer than 500 words

- Optionally, a URL pointing to more information

Abstracts and subsequent final papers are submitted without conditions: that is, authors must obtain any necessary approvals and/or clearances prior to submission. Authors of accepted papers will be required to sign a copyright release form.

Electronic submissions will be accepted via the WWW at http://www.supercomp.org/sc97/submissions/ Proposals sent via fax will not be considered.

Questions should be addressed to:

Greg Papadopoulos, SC97 Technical Program Co-Chair
Sun Microsystems Computer Company
415-786-7378

Margaret Simmons, SC97 Technical Program Co-Chair
National Coordination Office for Computing, Information, and Communications
703-306-4722

sc97papers@mail.supercomp.org

Education Program

Deadline: May 16, 1997

The theme of the SC97 Education Program is the exploration of the many possible roles of high performance networking and computing in lifelong education in the 21st century. The program will continue the traditional focus on classroom applications, but it will also explore new models for teaching and learning facilitated by high performance networking and computing--particularly those models enabled by the Internet, WWW, Java, Gigabit LANs, cable modems, and virtual reality technologies.

The Education Program solicits participation by educators and administrators at all levels, researchers, corporate training personnel, representatives of educational standards organizations, professional and civic associations, federal and private funding agencies, and students of all ages. The primary goals are to stimulate

discussion and interaction between stakeholders and to foster the development of continuing projects that catalyze the lifelong learning movement within the United States. The program will include invited talks, technical papers, panels, software demonstrations, poster sessions, and hands-on labs held Sunday through Wednesday, November 16-19, 1997.

Education Papers, Panels, Software Demonstrations, Posters, and Labs

The SC97 conference welcomes proposals for education papers, panels, software demonstrations, posters, and labs in these categories:

Lifelong Learning: Demonstration of novel approaches of the use of high performance networking and computing technologies in the development and delivery of lifelong education.

University Education: Results and experiences relating to post-secondary high performance networking and computing science education.

K-12 Education: Proposals reporting results and experiences from K-12 educators relating to high performance networking and computing, the National Information Infrastructure, computational science, and the information superhighway in K-12 education.

How to Submit Proposals to the Education Program

Proposals to the Education Program must include:

- Descriptive title for the proposed paper, panel, software demonstration, poster, or lab

- A clear indication of what type of proposal is being submitted (paper, panel, software demonstration, poster, or lab)

- Name, telephone number, postal and e-mail address of each author

- Abstract body of fewer than 500 words; entire proposal must not exceed 5,000 words

- Optionally, a URL pointing to more information

Abstracts are submitted without conditions: that is, authors must obtain any necessary approvals and/or clearances prior to submission.

Electronic submissions will be accepted via the WWW at http:/www.supercomp.org/sc97/submissions/ Assistance is available for those unfamiliar with the WWW. Proposals sent via fax will not be considered.

Questions should be addressed to:

Bryant W. York, SC97 Education Co-chair
College of Computer Science, Northeastern University
617-373-2177

Roscoe Giles, SC97 Education Co-chair
Boston University
617-353-6082
education97@mail.supercomp.org

Tutorials

Deadline: May 16, 1997

The tutorials program will cover a spectrum of topics related to high performance networking and computing, including parallel and distributed computing, scientific visualization, networking, operating systems, standards, compiler technology, algorithms and numerical methods, programming methods and tools, data mining, and storage access systems. In addition, proposals for tutorials in the areas of performance and scalability, WWW or video servers, scientific applications areas, non-traditional supercomputer applications, and multimedia will be viewed favorably. Tutorials may be proposed for either a full day (six hours) or half day (three hours), but should be designed to appeal to a significant portion of SC97 attendees. Instructors who propose to use electronic presentation technology must state requirements.

How to Propose a Tutorial

Proposals must include:

- An abstract (150 words or fewer) suitable for publication

- A breakdown on level of presentation (total of 100%, subdivided into % beginner, % intermediate and % advanced)

- A brief description of the tutorial material and intended audience (400-750 words)

- A lecture outline/schedule (total of three hours for half-day; six hours for full-day)

- Samples of visual materials to be used

- A short vita (three double-spaced pages or fewer), including the names and e-mail addresses of three references who are familiar with the proposer's lecturing ability

Submissions missing any of the requisite components will be returned without review. Proposers will be notified of acceptance by June 16, 1997. Electronic or camera-ready copy of all presentation materials will be due September 16, 1997.

Electronic submissions will be accepted via the WWW at http://www.supercomp.org/sc97/submissions/ Proposals sent via fax will not be considered.

Questions should be addressed to:

Ann Hayes, SC97 Tutorials Chair
Los Alamos National Laboratory
505-665-4506
tutorials97@mail.supercomp.org

High Performance Computing Challenge

Deadline: May 16, 1997

The SC97 High Performance Computing Challenge will be a race to solve a known hard cryptographic problem at the conference, using the networking and computing resources available on the exhibit floor and through the Internet connection of SCinet97.

SC97 solicits teams of students with industry supporters to compete for the challenge.

The competition will be held on the exhibit floor in full view of conference and exhibit attendees. The problem will be made known well in advance to the competing teams. Teams will be selected based on the innovative nature of their proposed problem-solving approach.

Teams should comprise:

- An academic/research advisor

- Between 4-8 students enrolled in an institution of higher learning

- An industry supporter providing consultation and equipment for their team to connect to SCinet97 and the display equipment that will show the team's progress in solving the problem.

Awards

Gold, Silver, and Bronze medals will be awarded to the first, second, and third teams to solve the problem. In addition, special awards will be given to:

- The solution that uses the most systems

- The solution that uses the widest range of heterogeneity

- The solution that is most geographically distributed

- The solution or team that is most creative, innovative, or unusual

How to Submit a Proposal for the High Performance Computing Challenge

Proposals (no more than 500 words) must include:

- The URL of the team's submission

- The membership of the team by names and organizations

- The team's problem-solving approach

- The anticipated time and resources that the team will use to solve the problem

- The telephone number, fax number, and e-mail address of each team member and the student leader

Electronic submissions will be accepted via the WWW at http:/www.supercomp.org/sc97/submissions/ Proposals sent via fax will not be considered.

Questions should be addressed to:

Louis Turcotte, SC97 HPC Challenge Chair
USAE Waterways Experiment Station
601-634-4421
hpcc97@mail.supercomp.org

Research Exhibits

Deadline: August 8, 1997

Research exhibits provide an opportunity to demonstrate new and innovative research results. To encourage participation, space is provided for equipment, and network links are available for dynamically presenting the research via executing programs. During regular exhibition hours, research exhibitors must demonstrate and discuss their research with conference attendees. Research exhibitors are encouraged to submit multimedia proposals of their work, including, where appropriate, short video clips, suitable for access over the WWW. References to additional information available on the WWW are also appropriate. Information on the selected research exhibits will be made widely available electronically before and during the conference. Assistance will be provided to exhibitors for assembling multimedia abstracts of their exhibits for this distribution.

How to Propose a Research Exhibit

Proposals must include:

- An abstract (150 words or fewer) suitable for publication

- A description (500-750 words) of the exhibit, delineating the purpose of the exhibit, computing equipment to be used, required network connection, and a statement of justification if you need help with shipping costs

- The name, address, e-mail, phone, and fax information of a contact person

Proposals should be submitted without conditions; authors must obtain any necessary approvals and/or clearances prior to submission. Submitters of accepted Research Exhibits will be notified by September 8, 1997.

Electronic submissions will be accepted via the WWW at http:/www.supercomp.org/sc97/submissions/ Proposals sent via fax will not be considered.

Questions should be addressed to:

Linda Callahan, SC97 Research Exhibits Chair
Cornell Theory Center
607-254-8610
research_exhibits97@mail.supercomp.org

Poster Exhibits

Deadline: August 8, 1997

Posters reporting results and experiences related to high performance networking and computing are welcome for presentation at SC97. Poster exhibits offer researchers an opportunity to present their results both informally and interactively. Researchers may use the traditional paper poster formats or provide interactive multimedia presentations via video/VCR or stand-alone computers.

Presenters who wish to present their research at SC97 using the WWW should submit their proposals to Research Exhibits rather than Poster Exhibits. During scheduled poster sessions, researchers should be available to discuss their research with conference attendees.

How to Propose a Poster Exhibit

Proposals must include:

- An abstract (150 words or fewer)

- Information on the mode of presentation (standard poster, video, laptop computer, etc.)

- Any equipment requirements (TV/VCR)

- A contact name, address, e-mail, phone and fax information for the presenter

Proposals should be submitted without conditions: authors must obtain any necessary approvals and/or clearances prior to submission. Submitters of accepted posters will be notified by September 8, 1997.

Electronic submissions will be accepted via the WWW at http:/www.supercomp.org/sc97/submissions/ Proposals sent via fax will not be considered.

Questions should be addressed to:

Pat Teller, SC97 Posters Chair
New Mexico State University
posters97@mail.supercomp.org

Industry Exhibits

Associated with the annual SCXY conferences is the premiere industry exhibition in the field of high performance networking and computing. Representatives from a number of communities come together once a year for this event: high performance computing, networking, storage systems, multimedia and video-on-demand, scientific and engineering applications, compilers, software tools, graphics and visualization, and educational software. Exhibiting companies will have or will be developing products and services in all these areas.

For SC97--taking place in the heart of Silicon Valley--a number of new exhibitors are expected. These will include companies involved with the development of the global information infrastructure , telecommunications services, digital libraries, virtual environments, and a data-intensive applications software companies.

Information on the SC97 exhibition is available at URL http://www.supercomp.org/sc97/exhibits/ or contact:

Cherri Pancake, SC97 Exhibits Chair
Department of Computer Science
Oregon State University
Corvallis, OR 97331
541-737-2109
541-737-3014 fax
pancake@cs.orst.edu

Don Collier, SC97 Exhibit Management
DC Expositions, Inc.
555 Republic Drive, Suite 316
Plano, TX 75074
1-888-980-5488
972-423-4286
972-423-4323 fax
dcexpo@worldnet.att.com

Exhibitor Forum

Deadline: August 8, 1997

The Exhibitor Forum provides an excellent opportunity for conference attendees to hear leading industry representatives describe research and development breakthroughs. Presentations are non-commercial in nature, covering such topics as future directions in research and development, the emergence of new technologies related to high performance computing and communications, and new applications areas.

Forum presentations are open to all conference attendees, including exhibitors and exhibits-only pass holders. The half-hour sessions run concurrently with the technical program from Tuesday through Thursday and are limited to companies exhibiting at SC97 (maximum of one presentation per exhibitor).

Time slots are made available to exhibiting companies on a first-come, first-served basis.

How to Propose an Exhibitor Forum Session

Proposals must include the following:

- Title of presentation

- Abstract (150 words or fewer) describing the presentation's content

- Name, address, e-mail, phone, and fax information for the presenter

- Details of any equipment requirements

- Time preferences: first and second choices of day (Tuesday, Wednesday, or Thursday) and time slot (morning, midday, afternoon)

Electronic submissions will be accepted via the WWW at http:/www.supercomp.org/sc97/submissions/ Proposals sent via fax will not be considered.

Questions should be addressed to:

John Reed, SC97 Exhibitor Forum Coordinator
University of Oregon, Department of Computer Science
541-737-5735
forum97@mail.supercomp.org

SCinet97

The networking component of the annual SCXY conference increases in importance and complexity each year. SCinet, the on-site network designed and built especially for these conferences, vividly demonstrates the role that high performance networking and computing technology have played and will continue to play in the development of what we commonly refer to as the information superhighway.

At SC'95 SCinet demonstrated the technical feasibility and benefits of a high performance computing environment using serial HiPPI, FDDI, switched and shared Ethernet, and ATM. This activity was augmented by an experimental, high performance network called IWAY, based on ATM technology, linking dozens of the country's fastest computers and advanced visualization environments. It provided a testbed where large-scale simulations and interactive visualization projects could be developed and demonstrated.

SCinet 96 build on networking activities of previous conferences, providing many opportunities for attendees to participate and view communications technology "at work" on many platforms and applications. The infrastructure was a fully integrated network, including the following components:

- A Global Wide Area Applications Testbed (G-WAAT)

- SCinet High Speed Network - FDDI, ATM and HiPPI infrastructure available throughout the duration of the conference.

- SCinet Commodity Network - Ethernet connectivity available to exhibitor and researcher booths the day they move into the building.

SC97 will take place in San Jose, the hub of the Silicon Valley, with access to many high-speed networks. SCinet97 will offer both a stable, state-of-the-art infrastructure for the conference with a high-speed Internet connection and additional high-speed connections for experiments in applications benefiting from very high bandwidth communications. As in prior years, we are organizing a team of researchers, exhibitors, communications carriers, and networking equipment suppliers along with volunteers from universities, government, and industry to assemble and operate SCinet97.

Specific details describing opportunities will be made available at http://www.supercomp.org/sc97/scinet/. Potential collaborators should review this material frequently to stay abreast of new opportunities for participation as 1997 progresses.

Questions should be addressed to:

Bob Borchers, SC97 Networking Chair
National Science Foundation
703-306-1970
scinet97@mail.supercomp.org

Birds-of-a-Feather

Deadline: August 8, 1997

Birds-of-a-Feather (BOF) sessions are informal get-togethers where conference attendees can discuss topics of mutual interest. Meeting room facilities will be provided at the convention center. A BOF notice board will publicize the meeting schedule. Organizers must submit descriptions suitable for the on-line electronic information system. Accepted proposals received by August 8, 1997, will appear in the SC97 Final Program. An attempt will be made to accommodate session requests up to the start of the conference.

How to Submit Proposals for BOFs

Requests for Birds-of-a-Feather session facilities should include the following information:

- Title of group

- Contact person and address, including e-mail

- Expected number of participants (1-10, 11-30, 30+)

- Short description of issues to be addressed and audience of interest

- List of presentation equipment required (e.g., overhead projector, 35mm slide projector)

Electronic submissions will be accepted via the WWW at http:/www.supercomp.org/sc97/submissions/ Proposals sent via fax will not be considered.

Questions should be addressed to:

Ann Hayes, SC97 BOF Chair
Los Alamos National Laboratory
505-665-4506
bof97@mail.supercomp.org

SC97 Deadlines

May 16, 1997 - Proposals for tutorials, education papers, education panels, and education labs due. Initial submission of extended abstracts for proposals for technical papers, tutorials, and the HPC Challenge.

June 16, 1997 - Notification of acceptance for technical papers, and education papers, panels, and labs.

August 8, 1997 - Proposals for research exhibits, poster exhibits, Exhibitor Forum, and Birds-of-a-Feather sessions due.

August 15, 1977 - Technical and education papers due in final HTML format. Presentation materials for accepted tutorials due.

September 8, 1997 - Notification of acceptance for research exhibits, poster exhibits, and Exhibitor Forum.

Electronic submissions will be accepted via the WWW at http:/www.supercomp.org/sc97/submissions/

SC97 Sponsors: ACM SIGARCH and IEEE Computer Society

Association for Computing Machinery

The Association for Computing Machinery (ACM), the First Society in Computing, is a major force in advancing the skills and knowledge of information technology professionals and students throughout the world. ACM serves as an umbrella organization offering its 90,000 members a variety of forums in order to fulfill its members' needs--the delivery of cutting-edge technical information, the transfer of ideas from theory to practice, and opportunities for information exchange. Providing high-quality products and services--world-class journals and magazines, dynamic special interest groups, numerous "main event" conferences, tutorials, workshops, local special interest groups and chapters, and electronic forums--ACM is the resource for lifelong learning in the rapidly changing field of information technology. For membership information, please contact:

ACM Member Services Department
1515 Broadway
New York, NY 10036, USA
1-800-342-6626 (USA and Canada)
+1-212-626-0500 (metro NY and outside the USA)
+1-212-944-1318 fax
acmhelp@acm.org

In Europe:
ACM European Service Center
108 Cowley Road
Oxford, OX4 1JF
UK
+44-1865-382-338
+44-1865-381-338 fax
acm_europe@acm.org

IEEE Computer Society

The IEEE Computer Society is your resource for information on computing. Celebrating its 50th anniversary in 1996, it is the oldest and largest association of computer professionals in the world. It offers nearly 100,000 members a comprehensive program of publications, meetings, and technical and educational activities, fostering an active exchange of information, ideas, and innovation. The society is the world's leading publisher of technical material in the computing field. Headquartered in Washington, DC, the society serves its members from offices in Los Alamitos, CA; Tokyo; and Brussels. The society is the largest technical society within the Institute of Electrical and Electronics Engineers (IEEE). For more information, please contact:

IEEE Computer Society
Membership Services
10662 Los Vaqueros Circle
Los Alamitos, CA 90720-1264
1-800-272-6657 (USA and Canada)
+1-714-821-8380 (outside the USA and Canada)
+1-714-821-4010 fax
cs.info@computer.org

SC97 Committee Members

Conference Chair
Dona Crawford
Sandia National Laboratories
510-294-2628
dona@ca.sandia.gov

Conference Office
Bernie Marx
Sandia National Laboratories
510-294-2629
bimarx@ca.sandia.gov

Conference Vice Chair
Dave Cooper
Lawrence Livermore National Laboratory
510-422-4010
dcooper@llnl.gov

Conference Deputy Chair
Dennis Duke

San Diego Supercomputer Center
619-534-8381
dduke@sdsc.edu

Technical Program Co-Chair
Greg Papadopoulos
Sun Microsystems Computer Company
415-786-7378
gregp@corp.sun.com

Technical Program Co-Chair
Margaret Simmons
National Coordination Office for Computing, Information, and Communications
703-306-4722
simmons@hpcc.gov

Deputy Program Chair
Joanne Martin
IBM Corporation
914-433-8493
jmartin@vnet.ibm.com

Tutorials Chair; BOF Chair
Ann Hayes
Los Alamos National Laboratory
505-665-4506
ahh@lanl.gov

Education Co-Chair
Roscoe Giles
Boston University
617-353-6082
roscoe@bu.edu

Education Co-Chair
Bryant York
Northeastern University
617-373-2177
york@ccs.neu.edu

Networking Chair
Bob Borchers
National Science Foundation
703-306-1970
borchers@nsf.gov

Industrial Liaison Chair
Bill Boas
Essential Communications
505-344-0080, Ext. 307
bboas@esscom.com

Exhibits Chair
Cherri Pancake
Oregon State University
541-737-2109
pancake@cs.orst.edu

Registration Chair
Committee Coordination Chair
Karen Friedman
National Center for Atmospheric Research
303-497-1276
karen@ncar.ucar.edu

Finance Chair
Pam Howard
Lawrence Livermore National Laboratory
510-423-6099
phoward@llnl.gov

Conference Center Chair
John Ranelletti
Lawrence Livermore National Laboratory
510-424-6975
johnr@llnl.gov

Local Arrangements Chair
Mary Amiot
Cray Research, Inc.
612-683-3524
mary.amiot@cray.com

Publicity Chair
Ann Redelfs
San Diego Supercomputer Center
619-534-5032
redelfs@sdsc.edu

Housing Liaison
Ellen Gore
Gore Event Management
602-802-6770
ellengore@aol.com

Graphic Designer
Mo Viele
Mo Viele, Inc.
607-272-4172
mv12@cornell.edu

Exhibition Management
Don Collier
DC Expositions, Inc.

972-423-4286, 1-888-980-5488
dcexpo@worldnet.att.com

SIGARCH Liaison
Debbie Hall
Meeting Hall, Inc.
203-287-9555
halldeb@aol.com

IEEE Computer Society Liaison
Anne Marie Kelly
IEEE Computer Society
202-371-1013
a.m.kelly@computer.org

SC97 Technical Program Committee

Technical Program Committee Co-Chair: Greg Papadopoulos, Sun Microsystems Computer Company

Technical Program Committee Co-Chair: Margaret Simmons, National Coordination Office for Computing, Information, and Communications

Panels/Workshops Chair: Fran Berman, University of California, San Diego

Posters Chair: Pat Teller, New Mexico State University

Survey Talks Chair: Jim McGraw, Lawrence Livermore National Laboratory

High Performance Computing Challenge Chair: Louis Turcotte, USAE Waterways Experiment Station

Research Exhibits Chair: Linda Callahan, Cornell Theory Center

Proceedings Chair: Dan Dwyer, Cornell Theory Center

David Bailey, NASA Ames
Eric Brewer, Inktomi
David Burridge, ECMWF
David Callahan, Tera Computer Co.
Andrew Chein, University of Illinois
David Culler, University of California, Berkeley
Tom Defanti, EVL
Jack Dongarra, University of Tennessee/ORNL
Ian Foster, Argonne National Laboratory
Dennis Gannon, University of Indiana
Garth Gibson, Carnegie Mellon University
Mary Hall, Caltech
Karim Harzallah, Tandem Computers
Ann Hayes, Los Alamos National Laboratory
Tony Hey, University of Southampton
Mark Horowitz, Stanford University
Sally Howe, NCO
David Kahaner, ATIP
Carl Kesselman, Caltech

Charles Leiserson, Massachusetts Institute of Technology
Kai Li, Princeton University
Bart Miller, University of Wisconsin
Mike Norman, National Center for Supercomputing Applications
Yoshio Oyanagi, University of Tokyo
Philip Papadoupolos, Oak Ridge National Laboratory
Rick Rashid, Microsoft Corp.
Dan Reed, University of Illinois
John Reynders, Los Alamos National Laboratory
Roy Richter, GM Research
Richard Shaginaw, Bristol-Myers-Squibb
Larry Snyder, University of Washington
Horst Simon, Lawrence Berkeley Laboratory
Paul Woodward, University of Minnesota

SC97 Tutorials Committee

Tutorials Committee Chair: Ann Hayes, Los Alamos National Laboratory

Richard Allen, Sandia National Laboratories
Donald Austin, National Coordination Office for Computing, Information, and Communications
David Bailey, NASA Ames Research Center
Jeff Brown, Los Alamos National Laboratory
Marc Christon, Sandia National Laboratories
Dennis Duke, SDSC and SCRI
Marty Itzkowitz, Silicon Graphics Inc.
Allen Malony, University of Oregon
Sam Milosevich, Eli Lilly & Co.
Ken Miura, Fujitsu America
Tom Morgan, Argonne National Laboratory
Nicholas Nystrom, Pittsburgh Supercomputing Center
Rod Oldehoeft, US Department of Energy
Doug Pase, IBM Corporation
Dan Pryor, Center for Computing Sciences
Richard J. Pryor, Sandia National Laboratories
John Ranelletti, Lawrence Livermore National Laboratory
Pat Teller, University of Texas at El Paso
Linda Torczon, Rice University
Steve Wallach, Convex Computer Co.
Mary Zosel, Lawrence Livermore National Laboratory

SC97 Education Committee

Education Committee Co-chair: Roscoe Giles, Boston University

Education Committee Co-chair: Bryant W. York, Northeastern University

Fran Berman, University of California at San Diego
Andrew Bernat, University of Texas at El Paso
Jan Cuny, University of Oregon
Ephraim Glinert, Rensselaer Polytechnic Institute
Harvey Gould, Clark University

Gary Johnson, US Tech Corps and George Mason University
Arthur Karshmer, New Mexico State University
Cynthia Lanius, Houston School District
Tom Marchioro, US Department of Energy, Ames Laboratory
Tom Probert, Enterprise Computing Institute
Elliott Soloway, University of Michigan
Richard Tapia, Rice University
Valerie Taylor, Northwestern University
Ramon Vasquez, University of Puerto Rico--Mayaguez

SCXY Steering Committee

SCXY Chair: Sid Karin, University of California, San Diego

David Cooper, NASA Ames Research Center
Robert R. Borchers, National Science Foundation
Beverly Clayton, Pittsburgh Supercomputing Center
Randy Christensen, Lawrence Livermore Laboratory
Dona L. Crawford, Sandia National Laboratories
Ann Hayes, Los Alamos National Laboratory
Dennis Duke, SDSC and SCRI
Mary Jane Irwin, Penn State University
Gary Johnson, US Tech Corps and George Mason University
Michael Levine, Pittsburgh Supercomputing Center
George Michael, Lawrence Livermore National Laboratory
C. Edward Oliver, Oak Ridge National Laboratory
Cherri Pancake, Oregon State University
David A. Patterson, Computer Science Division
Daniel V. Pryor, Supercomputing Research Center
John Riganati, David Sarnoff Research Center
Ralph Roskies, Pittsburgh Supercomputing Center
Robert G. Voigt, National Science Foundation
Xiaodong Zhang, University of Texas at San Antonio

SC97: High Performance Networking and Computing
San Jose Convention Center
San Jose, CA, USA

Conference: November 15-21, 1997
Exhibition: November 17-20, 1997

SC97 General Information
http://www.supercomp.org/sc97/
sc97@mail.supercomp.org

Dona Crawford, SC97 Chair
Sandia National Laboratories
7011 East Ave., MS 9003
Livermore, CA 94550
1-888-GO2-SC97 (1-888-462-7297) or 1-510-294-2629
1-510-294-3422 fax

SC97 Exhibit Information
http://www.supercomp.org/sc97/exhibits

Don Collier, SC97 Exhibition Management
DC Expositions, Inc.
555 Republic Drive, Suite 316
Plano, TX 75074
1-888-980-5488 or 1-972-423-4286
1-972-423-4323 fax
dcexpo@worldnet.att.com