Administration Releases “Austere” FY05 Budget
Computing R&D Declines Under President’s Plan

By Peter Harsha

Federal government support for computing research would decline by 1 percent overall next year under the President’s budget request for 2005, released February 2, 2004. Computing research at the National Science Foundation (NSF), National Institutes of Health (NIH), and Department of Energy (DOE) would grow slightly under the President’s plan—at a rate close to or below the rate of inflation—while funding at the National Aeronautics and Space Administration (NASA) and Department of Defense (DOD) would see significant cuts.

Overall, federal research and development would see an increase to $131 billion in FY 2005, up from $125 billion appropriated in FY 2004, an increase of 5 percent. Federal support for basic research would see a modest 0.6 percent increase, to $26.8 billion in FY 2005 from $26.7 billion in FY 2004.

Presidential budget advisors, however, said the funding levels were indicative of the high priority the administration places on federal research and development activities. In a press briefing coinciding with the budget release, Marcus Peacock, Associate Director, White House Office of Management and Budget, noted that the 5 percent overall growth in federal research and development spending should be judged in comparison to the less than 1 percent increase in non-defense-related discretionary spending throughout the rest of the budget.

Speaking at the National Academy of Sciences with White House Office of Science and Technology Policy director John Marburger, Peacock said the 2.3 percent increase in non-defense-related R&D in an otherwise “very austere” budget demonstrated the administration’s continued commitment to a healthy federal R&D enterprise.

Under the President’s plan, the federal government’s Networking and Information Technology Research and Development program (NITRD)—the program comprising all federal IT R&D activities—would decrease slightly to just over $2.00 billion for FY 2005, down from $2.02 billion in FY 2004. Funding at NSF, the lead agency in the NITRD program, would increase by $7 million to $161 million for FY 2005, an increase of 1 percent. Funding at DOE would also grow to $354 million, up $10 million from FY 2004.

Marburger described the NITRD initiative as “highly successful” and “mature,” justifying limited reprogramming within some agencies and allowing for program cuts. Under the administration’s blueprint, NASA’s spending on IT R&D would fall to $359 million in FY 2005, down $16 million from FY 2004. Funding would also be reduced at DOD to $2.26 billion for FY 2005, down 26 percent from FY 2004 levels.

Round out the program, the Department of Commerce—which includes the National Institute of Standards and Technology (NIST) and the National Oceanic and Atmospheric Administration (NOAA)—would receive a $7 million increase to $35 million for FY 2005; and the Department of

Lawrence Berkeley National Lab

By Horst Simon

This is another in a series of CRN articles describing the activities of CRA’s industry laboratory members. Others are posted at: http://www.cra.org/report/llabs.

BACKGROUND

Lawrence Berkeley National Laboratory has been a leader in scientific research in the United States for more than 70 years, winning nine Nobel Prizes and drawing valuable partners. This “big science” approach to solving problems is still alive and well at the Lab, and aptly describes its mission across all types of research. Likewise, Berkeley Lab has been a partner in many technological innovations in computing and networking.

The Lab’s Computing Sciences organization is a key contributor to scientific research funded primarily by DOE’s Office of Science and conducted at national labs and universities across the country, providing the computing and networking infrastructure essential to collaborative research. Comprising three divisions, Computing Sciences supports fundamental research in networking and computer science and in applied mathematics, and provides high-performance computational and networking tools to researchers in environmental and atmospheric research, fusion energy, structural biology, genomics, chemical and materials sciences, and high energy, nuclear, and plasma physics. In all of these fields, high performance computing (HPC) allows researchers to organize and analyze massive amounts of data in short periods of time, and design complex experiments to test theories that advance scientific understanding.

COMPUTING SCIENCES AT BERKELEY LAB

In order to accommodate the demands of advanced scientific research, the Berkley Lab’s Computing Sciences organization has specialized divisions to manage and allocate the

Lawrence Berkeley National Lab

Continued on Page 5
The Computing Research Association’s (CRA) Committee on the Status of Women in Computing Research (CRA-W) initiated and oversees the Distributed Mentor Project (DMP). The goal of the DMP is to increase the number of women entering graduate studies in the fields of computer science and computer engineering. It brings together CS&CE undergraduates and faculty for a summer of research at the mentor’s research institution. Students become directly involved in research, meet and interact with graduate students and faculty, and work with successful researchers. This experience has proved to be invaluable to those students who are considering applying to graduate school.

Since its inception in 1994, more than 250 students have participated in the program. The most recent evaluation of the DMP conducted by the LEAD (Learning through Evaluation, Adaptation and Dissemination) Center at the University of Wisconsin, Madison, found that 51.3% of the participants who had graduated had either already obtained a graduate degree or were enrolled in graduate school. This is in contrast to the Baccalaureate and Beyond survey, conducted by the National Center for Educational Statistics in 1994, which found that only 2.53% of women who graduated had either already obtained a graduate degree or were enrolled in graduate school.

As the program has become more widely known, the number of undergraduate and faculty mentor applicants has increased. During the past three years, student applications have increased by about 50% each year. With increased support from the National Science Foundation, the number of student applicants has also increased each year, but not nearly as dramatically. Thus, with this increasing interest but limited funding, many qualified undergraduates have completed a significant number of computer science and related courses so that they have the background to contribute to a research project.

Students typically work with a faculty member during a ten-week period over the summer. Undergraduates are selected who have demonstrated, through grades and letters of recommendation, that they have the potential to succeed in a graduate program. Undergraduates are usually in their junior year, and have completed a significant number of computer science and related courses so that they have the background to contribute to a research project.

Participating students usually work alongside graduate students on a project and thus are provided an opportunity to experience some aspects of graduate school first-hand. DMP students also interact closely with a faculty member who can explain the goals, directions, and approaches being pursued within the research project, as well as provide career guidance. For many women computer science students, this is their first opportunity to interact with a woman faculty member. Male mentors are encouraged to provide opportunities for DMP students to interact with female faculty and graduate students.

Although many CS&CE faculty engage undergraduates in their research projects, the DMP tries to provide a sense of “community” to the DMP students in order to help lessen the isolation that is sometimes associated with being a member of an underrepresented group. These activities include such things as receiving material from the DMP project, contributing to the DMP project web pages, and attending conferences where DMP students are gathering. All selected students are considered part of the DMP community, whether a student is teamed with a DMP faculty mentor. DMP students are eligible for financial support to help cover travel expenses to their mentor’s institution, attendance at conferences to promote their research, or participation in DMP activities.

The DMP has a rigorous selection process. To apply to be a student participant, students must fill out the web-based application form. Students must provide a current transcript along with two letters of recommendation from faculty mentors. Applicants should apply to be a mentor, faculty must fill out a web-based application form and describe the research project, as well as provide a current CV. It is anticipated that the DMP will enable more qualified students to participate in the DMP while also providing a good mechanism for male faculty to mentor DMP students. Students typically work with a faculty mentor during a ten-week period over the summer. Undergraduates are selected who have demonstrated, through grades and letters of recommendation, that they have the potential to succeed in a graduate program. Undergraduates are usually in their junior year, and have completed a significant number of computer science and related courses so that they have the background to contribute to a research project.

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### Expanding the Pipeline

**Plans to Expand the Distributed Mentor Project**

By Nancy Amato, Lori A. Clarke, and Jessica Hodges

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### Continued on Page 6

**Distributed Mentor Project**

Continued on Page 6

### Affiliate Societies

- ACM
- IEEE Computer Society
- SIAM
- CACM
- NAI Labs
- ASEE
NSF/CISE Plans for FY2005

By Kamal Abdali, Gregory Andrews, Mari Maeda, Michael Pazzani

At the National Science Foundation (NSF), the Directorate for Computer & Information Science & Engineering (CISE) began operating in 1985, and a relatively minor reorganization took place in 1997. Needing to say, a lot has happened in the past 19 years or even the past seven. The 2003 reorganization was driven by changes to the field and by four additional objectives:

1. Enhance the research portfolio by strengthening the core and addressing important new challenges;
2. Increase the synergy between research and education;
3. Broaden participation in the CISE workforce; and
4. Improve organizational effectiveness.

To meet these objectives, we have realigned divisions to mirror the structure of the field, grouped related research topics into clusters, and begun to develop themes for important, crosscutting initiatives.

The CISE home page, www.cise.nsf.gov, reflects the current status of the organization. The remainder of this article summarizes our plans for the 2004 divisions, and hence what the organization will look like for FY 2005, which begins October 1, 2004. The four crosscutting emphases for FY04—Cyber Trust, Education and Workforce Information Integration, and Science of Design—are described in previous or forthcoming issues of CRN and on the CISE web site.

Computing and Communication Foundations (CCF)

CCF supports research and education activities that explore the foundations of computing and communication devices and their usage. CCF inherited many of its activities from the former Division of Computer Communications Research (CCR), including numeric, symbolic, and geometric computation; software engineering; programming languages and compilers; computer architecture; design automation; signal processing; and communication. CCF has added areas focused on crosscutting issues from the former Division of Advanced Computational Infrastructure and Research (ACIR), and quantum and bio-inspired computing from the former Division of Experimental and Integrative Activity (EIA). CCF’s systems-oriented programs have moved to the Computer and Network Systems (CNS) division. These additions and reductions have made CCF a more cohesive division devoted to the foundational issues in computing and communication.

CCF is organized into three clusters:

1. Formal and Mathematical Foundations: This cluster seeks to determine inherent limits of computation and communication, and to obtain optimal solutions within those limits. Topics include theory of computing; fundamental algorithms; application-specific theory; and theory, algorithms, and applications for communications research and signal processing.

2. Computing Processes and Architecture: This cluster seeks to advance methodologies pertaining to the artifacts and processes for building and communicating computer systems. Topics include software engineering; design and implementation of programming languages; high-performance computing; computer architecture; design automation; and computer graphics and visualization.

3. Emerging Models and Technologies for Computing: This cluster seeks to explore computational models, techniques, and systems based on emerging and future technologies. Topics include nanotechnology, quantum computing and communication, and computational devices and architectures inspired by the recursive information in living matter.

We were able to transition completely from programs into clusters this year, and to issue one program announcement per cluster, but this took time. While CCR’s proposal submission deadlines used to be in November and December, the FY04 deadlines for CCF’s clusters are in March. In FY05, we plan to go back to full deadlines after revising the solicitations in early summer.

Computer and Network Systems (CNS)

CNS supports research and education activities that strive to create innovative computing and networking technologies and systems, to make better use of existing technologies, and to create better abstractions and tools for designing, building, and measuring future systems. The division also supports the computing infrastructure that is required for experimental computer science. CNS has three clusters (and also hosts the CISE Education and Workforce programs and partnerships):

1. The Computer Systems cluster contains programs and project offices that came from ACIR and CCR: next-generation software, distributed systems and operating systems, and embedded and hybrid systems. (The trusted computing program has been transferred, by the Cyber Trust theme.) These programs all had fall deadlines, so this year they will be running as separate programs as in the past. We will create a single program solicitation this spring with the target date for proposals will be the first week in November.

2. The Network Systems cluster was formed from several programs that were in Advanced Networking Infrastructure and Research (ANIR). These programs all had mid-to late-spring deadlines, so we developed a single program solicitation—Research in Networking Technology and Systems (NetS)—that has an April 14 deadline. We will update that solicitation later this spring and release the new one in late summer. The target deadline for FY05 will be the first week in December.

3. The Computing Research Infrastructure cluster contains three programs that were in EIA: minority institutional infrastructure, research infrastructure, and researchers. This year, all three are being run as in the past. We are developing a single program solicitation that will subsume and expand all three programs. The anticipated deadline date is mid-August, so we will be releasing the solicitation by mid-May. The reason for this new date is to be out of phase with the mid-January deadline of the NSF-wide Major Research Instrumentation (MRI) program.

Information and Intelligent Systems (IIS)

The Division of Information & Intelligent Systems (IIS) contains the programs that were in the prior IIS division, and it added activities from EIA. IIS is organized into three clusters:

1. The Science and Engineering Informatics cluster supports research and education focused on advances in information technology that address problems in specific sciences and engineering domains (e.g., biology, geology, chemistry). In FY04, this cluster has a solicitation for Science and Engineering Information Integration and Informatics that supports research in areas such as bioinformatics, geoinformatics, and others, and a Joint NSF/DOE Initiative to Support Collaborative Research in Computational Neuroscience.

2. The Data Inference and Understanding cluster supports basic computer science research and education with the goal of creating general-purpose systems for representing, storing, and accessing data, information, and knowledge. It also supports research and education in automated methods of drawing conclusions from data and knowledge. Topical areas include: artificial intelligence and cognitive science; information and data management; digital libraries; computer vision; and human language and communication.

3. The Systems in Context cluster supports research and education on the interaction between information and communication systems and users, organizations, governmental agencies, the scientific community, and the external environment. Topical areas include: human-computer interaction; digital society and technologies; data and applications security; digital government and robotics.

In FY2004, each program had a separate solicitation with a single deadline in the fall. All programs in IIS will make the vast majority of funding decisions in time to allow PIs to make commitments to initiate research projects by the summer. In FY05, we anticipate a separate solicitation with a single deadline in the fall will through the winter. All programs in IIS will make the vast majority of funding decisions in time to allow PIs to make commitments to initiate research projects by the summer. In FY05, we anticipate a
Recent Trends in Doctorates Awarded in the Computer Sciences

By Jay Vegso

Figures released by the National Science Foundation for doctorates received in 2002 show a continued general decline in recent years in the number of degrees granted in the computer sciences (CS). The number of CS doctorates awarded peaked at 997 in 1995. In the following seven years, that number declined nearly 19 percent, to 811 in 2002.

On a more positive note, the portion of CS doctorates awarded to women has slowly increased in the past few decades (Figure 1). In 2002, the 168 doctorates received by women represented nearly 21 percent of those granted. This was the first time that women had received more than 20 percent of CS doctorates. In comparison, women received 18 percent of Engineering doctorates in 2002, and 37 percent of all Science and Engineering doctorates. Data from another NSF report show that women received between 25 percent and 30 percent of CS Master's degrees for much of the 1980s and 1990s, with a jump up to 34 percent in 2000 (the most recent year covered by the report). On the undergraduate level, however, women have done less well in recent years. Between 1980 and 1990, women received between 30 percent and 37 percent of Bachelor's degrees in CS. Since then, however, this figure has hovered below 30 percent.

In 2002, non-U.S. citizens received 54 percent of CS doctorates in cases where the citizenship of the recipients was known (Figure 2). This conforms to a recent trend: non-U.S. citizens were awarded more than one-half of CS doctorates in seven of the ten years leading up to 2002. In comparison, 38 percent of all Science and Engineering doctorates and 61 percent of Engineering doctorates were awarded to non-U.S. citizens in 2002.

More trends from the NSF's data on computer science degrees have been posted on the CRA website at http://www.cra.org/info/education/us/.

NAE Announces New Members and Foreign Associates

Congratulations to all members of the CSE community who were recently elected members and foreign associates of the National Academy of Engineering.

CRA board member, Alfred Z. Spector (IBM Corp.) was elected a member. Others from CSE included Rodney A. Brooks (MIT), Zvi Galil (Columbia University), Van Jacobson (Packet Design LLP), Bings-Huang (Fred) Juang (Georgia Institute of Technology), Frank T. Leighton (MIT), Joan L. Mitchell (IBM Corp.), A. Richard Newton (University of California, Berkeley), Raymond E. Ozite (Groove Networks Inc.), Lawrence Page (Google), Linda R. Petzold (University of California, Santa Barbara), Gary K. Starkweather (Microsoft Corp.), C. W. (Pete) Stewart (University of Maryland, College Park), Bjarne Stroustrup (Texas A&M University), and Victor W. Zue (MIT).

James Allen Gosling (Sun Microsystems, Inc.) was elected a foreign associate of NAE.

According to the NAE press release dated February 13, 2004, election to the National Academy of Engineering is among the highest professional distinctions accorded to an engineer. Academy membership honors those who have made “important contributions to engineering theory and practice, including significant contributions to the literature of engineering theory and practice,” and those who have demonstrated accomplishment in “the pioneering of new fields of engineering, making major advancements in traditional fields of engineering, or developing/implementing innovative approaches to engineering education.”

The Academy elected a total of 76 new members and 11 foreign associates. A list is provided on the NAE website (http://www.nae.edu).
LAB STAFF

In order to achieve these goals, the Computing Sciences organization brings together specialists from a variety of fields to collaborate in building customized applications and the expertise to make them run quickly and efficiently on leading-edge systems. Many of the Lab’s researchers have a background in math, physics, chemistry and other traditional sciences, in addition to computer science, and the combination of these skills helps them design applications and tools to solve even the most complicated scientific puzzles.

The staff also brings together industry, academic, and lab expertise, which makes for a valuable resource in designing and executing research projects. The approximately 550 joint staff appointments with the University of California, Berkeley, ensuring that the Lab benefits from a steady flow of ideas from the two institutions. Given the dynamic nature of the work at the Lab, researchers and scientists find new areas to apply their skills and new projects where their expertise is needed. It is not unusual to find staff members who have been active for more than a decade, or two, or three, and others who return to work not long after retirement parties.

The Lab, in total, employs about 4,320 people, including nearly 1,020 staff students, 1,200 undergraduate students, graduate students, and postdoctoral fellows, and more than 1,500 technical and support personnel. In addition, each year the Lab hosts more than 2,000 participating guests.

ACHIEVEMENTS

From the earliest days of scientific computing, Berkeley Lab has taken a leadership role in deploying and applying systems for research. In the 1950s, Luis W. Alvarez opened a new era in high-energy physics research with his proposal to build a pressurized chamber filled with liquid hydrogen. Known as a “bubble chamber,” this device would allow scientists to discover and study new particles. In 1959, his prospectus for such a facility, Alvarez became one of the first scientists to propose using computing devices for analyzing experimental data, even before such computers were actually available.

By the 1960s, Alvarez’s vision was reality as LANL researchers used computers to track some 1.5 million particle physics events annually and developed scientific computing techniques that were adopted by researchers around the world. This effort led to Alvarez receiving the Nobel Prize for Physics in 1968.

Here are some of the Lab’s other computing and networking achievements:

• In 1974, LANL connected its CDC 6600 computer to ARPANET, making it the first computer on the NSFNET.
• In 1985, ARPANET (the forerunner of the Internet), was collapsing due to congestion of data packets. In 1987, the TCP congestion control algorithms developed by Van Jacobson’s 1988 paper on congestion avoidance and control become Internet stan-
dards in 1989. In 1986, the network was plagued with rout-
ing instability between the many connecting systems, re-
sulting in many transmissions being lost. Lab experts devel-
oped a tool to trace data pack-
ets along the way, allowing routing problems to be pin-
pointed and corrected.

• Van Jacobson and Steven McCombe of LANL win one of Red Hat Magazine’s 1995 R&D 100 Awards for development of a software toolkit that enables multiparty audio and visual conferencing via the MBone (Multicast Backbone).

• In 1998 Ven Paxon of LANL is honored at a security confer-
ce for his paper “Two: A System for Detecting Network Intruders in Real Time.” Two years later, logs generated by Bro help the FBI convict a hacker for breaking into DOE and DoD computers.

• In 1999, the first IPv6 address is assigned to Ethernet, which plans to demonstrate the viability of using IPv6 to run scientific applications on the Internet. When DOE launches its Scientific Discovery through Advanced Computing (SciDAC) program in 2001, LANL is selected as the lead lab for six projects. These include the Scientific Data Manag-

• In 1995, the first R&D Magazine’s “Most Influential Paper” award was won by Dan Reed of LANL for his paper “Bro: A Software Toolpack That Enables Multiparty Audio and Visual Conferencing via the MBone.”

• In December 2003, NetworkWorld names LANL’s Michael Bennett as one the 50 most influential people in networking on a list dominated by leaders of net-
work and computer companies.

GUIDANCE

Berkeley Lab is managed by the University of California for DOE. The Lab’s funding is primarily from DOE and supports research in the Office of Science’s six major programs: Advanced Scientific Computing Research; Basic Energy Sciences; Biological and Environmental Research; Fusion Energy Sciences; High Energy Physics; and Nuclear Energy Physics.

Hans D. Simon is Director, NERSC Center and Computational Research Division, Lawrence Berkeley National Laboratory.
to $4.45 billion in FY 2005 (an increase of 4.7 percent). NSF's Education and Human Resources directorate would see a significant reduction to $722 million in FY 2005, down from $939 million in FY 2004—an 18 percent decline. The bulk of this decline appears to be the administration's request to move the directorate's Math and Science Partnerships program out of NSF and to the Department of Education. This proposal change has already generated swift criticism from House Science Chairman, Sherwood Boehlert (R-N.Y.), who noted his committee would fight the move "tooth and nail."

The President's budget also includes $204 million "to advance U.S. leadership" in high-end, emerging research at the Department of Energy. The request includes $38 million for the Next Generation Computer Architecture, as well as a second funding account for supercomputing work at the National Nuclear Security Agency (NNSA). Other agency highlights include a $1.37 billion increase requested for the Department of Homeland Security, a move that would bring the agency's budget to $40.2 billion for FY 2005. Included in that funding is $1.039 billion for FY 2005 for the department's Science and Technology directorate, up from $931 million in FY 2004. DRS: Appointment of President and Science and Technology, Penrose Albright, indicated that "to $0 to 40 percent" of that $1 billion would be directed toward the department's DARPA-esque research agency, the Homeland Security Advanced Research Projects Agency (HSARPA). The administration had warned for several months that this budget was going to be particularly tight. Several areas received priority: winning the war on terror, protecting the homeland, strengthening the economy, and "supporting key priorities like education, health care, and helping Americans most in need."

In addition, the President required that the budget put the government on course to halve the $521 billion budget deficit in five years, and that it keep spending growth to less than 1 percent in areas not related to defense and homeland security.

Marburger and Peacock also emphasized the administration's growing concern over the proliferation of "conditionally directed" programs—programs not competitively funded or peer-reviewed throughout the research and development budget. These congressional caveats, they said, now total more than $2.0 billion and account for nearly a quarter of all university funding.

Ask whether the administration, in addition to "zeroing out" the earmarks in future budgets, would bolt funding for earmarked projects in the current year, Marburger and Peacock both cited the political difficulties surrounding such a move and said it was unlikely.

The President's budget request marks the start of the annual federal budget and appropriations cycle. In the coming weeks, Congress will begin work on its own budget, culminating ultimately in the passage—likely later this fall—of the 13 annual appropriations bills that fund all federal government activities. Congress is not obligated to accede to the President's budget request, however, the President's budget serves as a useful baseline as the process moves forward.

For more detail on plans and priorities for computing research in specific agencies (unavailable at press time), check the CRA/ Government Affairs website at http://www.cra.org/govaffairs/.

\[\text{NSF-CISE Plans (from Page 3)}\]

\text{Distributed Mentor Project (from Page 2)}

\text{Making History (from Page 2)}

\text{NSF/CISE Plans from Page 3}

\text{Shared Cyberinfrastructure (SCI)}

The Division of Shared Cyberinfrastructure supports design, development, and deployment of a broad spectrum of information technology systems that facilitate and accelerate scientific discovery and engineering research. The SCI portfolio builds on projects funded initially by programs in the ACIR and ANIR divisions, but is also expected to expand and grow in scope and size. While the division is not organized into clusters, key areas of activity supported include:

- **High-End Computational Infrastructure**: SCI supports acquisition, operation, and upgrading of national infrastructure in support of high-end computation for the academic research and education community.

- **Advanced Networking Technologies and Infrastructures**: SCI supports networks of various reach and granularity, from international and domestic high-speed networks to regional or local wireless networks. Some of the key areas of interest include end-to-end networking protocols; performance and reliability; cyberinfrastructure; wireless networks; strategic international links; and testbeds for researchers.

- **Advanced Services and Software**: There is a growing need for development of robust software that increases the applications capabilities, offers abstractions that hide the underlying complexities, and enhances the usability of the overall system. Included in this category are middleware software, data services, and visualization tools, to name a few.

In FY04, solicitations are being issued to expand the middleware and other software portfolio; to support international networking links between US research and education networks with international counterparts; and to seek new projects that emphasize education, outreach, and training. Due to the complexity of many of the programs, we are currently making a careful assessment of the application community needs as well as the state-of-the-art in the near- to mid-term technology base, and the FY05 plans are currently still under development.

The authors are the Directors of the four NSF/CISE Directorates: Kamil Akdal (Computing & Communication Foundations), Gregory Andreas (Computer & Network Systems), Mari Madia (Shared Cyberinfrastructure), and Michael Pazzani (Intelligent Information Systems).

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- **Advanced Networking Technologies and Infrastructures**: SCI supports networks of various reach and granularity, from international and domestic high-speed networks to regional or local wireless networks. Some of the key areas of interest include end-to-end networking protocols; performance and reliability; cyberinfrastructure; wireless networks; strategic international links; and testbeds for researchers.

- **Advanced Services and Software**: There is a growing need for development of robust software that increases the applications capabilities, offers abstractions that hide the underlying complexities, and enhances the usability of the overall system. Included in this category are middleware software, data services, and visualization tools, to name a few.

In FY04, solicitations are being issued to expand the middleware and other software portfolio; to support international networking links between US research and education networks with international counterparts; and to seek new projects that emphasize education, outreach, and training. Due to the complexity of many of the programs, we are currently making a careful assessment of the application community needs as well as the state-of-the-art in the near- to mid-term technology base, and the FY05 plans are currently still under development.

The authors are the Directors of the four NSF/CISE Directorates: Kamil Akdal (Computing & Communication Foundations), Gregory Andreas (Computer & Network Systems), Mari Madia (Shared Cyberinfrastructure), and Michael Pazzani (Intelligent Information Systems).

\text{Distributed Mentor Project from Page 2}

\text{Making History (from Page 2)}

\text{Distributed Mentor Project (from Page 2)}

\text{NSF/CISE Plans from Page 3}

\text{Shared Cyberinfrastructure (SCI)}

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\text{Distributed Mentor Project from Page 2}
Augustana College (Illinois) Department of Mathematics and Computer Science

The Augustana College Department of Mathematics and Computer Science is seeking candidates for a tenure-track position in Computer Science. The position is available as of September 1, 2004.

The successful candidate will be expected to teach courses in computer science, participate in curriculum development, and maintain an active research agenda in a well-defined area of computer science.

The Department of Mathematics and Computer Science at Augustana is an active and growing program with approximately 60 majors and 200 students enrolled in the Computer Science Department. The department is committed to excellence in teaching and professional growth. Ph.D. is recommended.

Please submit a letter of application, curriculum vitae, statement of teaching philosophy, and three letters of recommendation to:

Dr. John C. Cushing
Chair, Department of Mathematics and Computer Science
Augustana College
Rock Island, IL 61201-2296

Details: http://www.ist.caltech.edu/about/caltech/careers/

Drexel University College of Engineering

Assistant Professor of Computer Science

The Department of Computer Science seeks outstanding candidates for the position of Assistant Professor in the Computer Science Department. The successful candidate will be expected to teach courses in computer science, participate in curriculum development, and maintain an active research agenda in a well-defined area of computer science.

The Department of Computer Science is committed to excellence in teaching and professional growth. Ph.D. is recommended.

Please submit a letter of application, curriculum vitae, statement of teaching philosophy, and three letters of recommendation to:

Dr. John C. Cushing
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Rock Island, IL 61201-2296

Drexel University, a private research university located in Philadelphia, is an equal opportunity employer committed to diversity and inclusion. Women and minority candidates are encouraged to apply.

Augustana College is an Equal Opportunity Employer.

Brynn Mawr College Department of Computer Science

Tenure-Track Faculty Position in Computer Science

Bryn Mawr College is an independent, coeducational college in the Association of Independent Maryland Colleges. The college is located in Bryn Mawr, Pennsylvania, approximately 15 miles from Philadelphia and just over an hour from New York City.

The Department of Computer Science at Bryn Mawr College seeks candidates for a tenure-track position in Computer Science. The successful candidate will be expected to teach courses in computer science, participate in curriculum development, and maintain an active research agenda in a well-defined area of computer science.

The Department of Computer Science at Bryn Mawr College is an active and growing program with approximately 60 majors and 200 students enrolled in the Computer Science Department. The department is committed to excellence in teaching and professional growth. Ph.D. is recommended.

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Tenure-Track Position in Computer Science (No. 212730 CRA)

Kent State University invites applications for five tenure-track faculty positions in Bioinformatics, Biotechnology, Cellular Biology, Microbiology, and Science Education beginning in Fall 2004, to support a strong multidisciplinary effort focused on understanding cell systems. To support this effort, Kent State University is investing in academic programs that will provide a strong research focus for the Kent State Biotechnology Center. Outstanding facilities for genomics, proteomics, bioimaging, computation and data visualization are available to support this effort. Applicants must have a Ph.D. degree in Computer Science or a related field. Areas of interest include, but are not limited to, bioinformatics, computational biology, and computer science and engineering in general. All applications are welcome and will be considered. The position is available immediately.

Applications should be submitted to Professor John E. Osborne, Department of Computer Science, Northwestern University, 1904 Mallord, Evanston, IL 60201. Review of completed applications will begin immediately, and will continue until the position is filled.

Southern Illinois University Carbondale: Computer Science Chair

The Department of Computer Science at Southern Illinois University Carbondale invites applications for the position of Chair of the Department of Computer Science. The position will begin on or before August 15, 2004. The Chair is the chief academic, administrative, and fiscal officer of the Department. The Chair's duties consist of administrative, teaching, and research responsibilities. Southern Illinois University Carbondale is located approximately 110 miles southeast of downtown St. Louis. It is a comprehensive university with more than 20,000 students. The Department of Computer Science offers B.S., B.A., and M.S. degrees.

Southern Illinois University Carbondale is an equal opportunity, affirmative action employer.资格和职位描述可参见申请表，所有文件应通过电子邮件发送。了解更多详情，请访问以下网址：http://www.cs.kent.edu/facsearch/。

Further information about the Department and applications can be obtained via the new high bandwidth state academic network. Preference will be given to early applications, but the search and review of applications will continue until the position is filled. Applications should be submitted to Professor John E. Osborne, Department of Computer Science, Northwestern University, 1904 Mallord, Evanston, IL 60201. Review of completed applications will begin immediately, and will continue until the position is filled. The Chair is the chief academic, administrative, and fiscal officer of the Department. The Chair's duties consist of administrative, teaching, and research responsibilities. Southern Illinois University Carbondale is located approximately 110 miles southeast of downtown St. Louis. It is a comprehensive university with more than 20,000 students. The Department of Computer Science offers B.S., B.A., and M.S. degrees. Candidates must have a doctorate degree in computer science or computer engineering and quality for tenure at the rank of associate or full professor. Candidates should have a strong record of research as evidenced by publications and external funding in any field of computer science. Additionally, we are seeking an individual with administrative experience who can help the Department's effort to implement a successful Ph.D. program and increase the unit's research productivity and external funding. Candidates must also possess a strong commitment to quality teaching at both undergraduate and graduate levels. Review of completed applications will begin on March 11, 2004 and continue until the position is filled. Applicants should send a letter of interest or resignation, the names and the names of three references to: Professor John E. Osborne, Chair, Department of Computer Science, Northwestern University, 1904 Mallord, Evanston, IL 60201. Applications will be accepted and reviewed until the position is filled. Applications should be submitted to Professor John E. Osborne, Department of Computer Science, Northwestern University, 1904 Mallord, Evanston, IL 60201. Review of completed applications will begin immediately, and will continue until the position is filled. The Chair is the chief academic, administrative, and fiscal officer of the Department. The Chair's duties consist of administrative, teaching, and research responsibilities. Southern Illinois University Carbondale is located approximately 110 miles southeast of downtown St. Louis. It is a comprehensive university with more than 20,000 students. The Department of Computer Science offers B.S., B.A., and M.S. degrees.
Successful nominees would hold a tenured position in the Department of Computer Science, or a joint appointment with another department. Further information about the CRC program may be found at http://www.cs.ucf.edu, where specific details about the Department and other positions or aspects of http://www.cs.ucf.edu/csr/csr.html. The open date is negotiable.

Candidates for nomination should submit a CV, a teaching and research statement, a publication record in Computer Science, and the names of at least three references to: Anne Condon (recent chair), Chair, Recruiting Committee Department of Computer Science University of British Columbia Vancouver, BC V6T 1Z4 or electronically to: chair-search@mail.ucf.edu.

The deadline for applications is March 1, 2004.

Computer Science at UBC is world renowned for its excellence in research and teaching. One of the University’s academic priorities is to continue to grow as a world class centre for Computing Science, and outstanding candidates are invited to participate in this effort.

Applications are particularly encouraged from exceptional research/teaching/research excellence record and excellent teaching ability. Successful candidates are expected to pursue an active research program in computer science, perform both graduate and undergraduate teaching, and supervised their students.

All positions are reviewed and final approval by the CRC Secretary. UBC has the right to and there is a commitment to employment equity. We encourage all qualified persons to apply and Women and Aboriginal Canadians. To be considered for appointment within the guidance on Canada and we to the Universities Research Canada grants. The wife will be in accordance with Concordia University’s appointments associated within the Canada Research Chairs program.

University of Central Florida

Director of the School of Computer Science

http://www.cs.ucf.edu/ The University of Central Florida (UCF) invites applications and nominations for the Director of the School of Computer Science. The University is strongly committed to computer science, designating it a key discipline and allowing the School $5 million per year in special recurrent funding. In 2006, UCF will break ground on a new state-of-the-art 75,000 sq. foot building to maintain and expand the excellence of the School of Computer Science. The Director is a unique opportunity to continue the School’s rapid growth in research and teaching, working in fellowship of faculty members at all levels, and by helping to develop and execute the School’s growth plans.

The University of Central Florida has over 42,000 students and is the nation’s fastest growing university. We are located in Orlando, Florida or the center of the Florida High Tech Corridor with a thriving industrial base in telecommunications, computer systems, biotechnology, and space. The University also has a strong interest in collaborative research. Significant opportunities for collaborative research exist within the University and with several centers and institutes on the University of Miami. We are particularly encouraged to apply.

Applications should include a letter of interest, a curriculum vitae, a statement of research and teaching interests, a resume of publications and funding, and the names of at least three references (five for a senior position) to:

Dr. Debra Reinhart, ECE Chair Search Committee Chair, Department of Electrical and Computer Engineering University of Houston Mail Stop CSC-302 Houston, TX 77204-302 USA

Dr. Debra Reinhart, Search Committee Chair, Department of Electrical and Computer Engineering University of Houston Mail Stop CSC-302 Houston, TX 77204-302 USA

UH is an Equal Opportunity/Affirmative Action employer. Minorities, women, veterans and candidates with disabilities are encouraged to apply.

The University of Central Florida is an Equal Opportunity/Anonymous action employer. Minorities, women, and candidates with disabilities are encouraged to apply.

University of Miami

Department of Computer Science

Faculty Position in Computer Science

The University of Miami is particularly interested in candidates in all areas of Computer Science, and will consider candidates with outstanding research accomplishments who can provide leadership in emerging fronts of Computer Science.

The University of Miami is particularly interested in candidates in all areas of Computer Science, and will consider candidates with outstanding research accomplishments who can provide leadership in emerging fronts of Computer Science.

Applications should include a cover letter addressing the required and preferred criteria, a detailed CV including publications, research grants, patents, and students supervised, and names and addresses of at least three references. Screening begins upon receipt of applications. Applications will be accepted until the position is filled. All materials should be sent to:

Dr. M. Jahanian, Chair, Department of Computer Science University of Miami P.O. Box 248014 Coral Gables, FL 33124-2481 or via email to cs-search@cs.miami.edu

University of Florida

Assistant Professor

Department of Computer Science

The University of Florida invites applications for the Assistant Professor position in Computer Science. The University of Florida is an Equal Opportunity/Affirmative Action employer. Minorities, women, and persons with disabilities are encouraged to apply.

Applications should include a cover letter addressing the required and preferred criteria, a detailed CV including publications, research grants, patents, and students supervised, and names and addresses of at least three references. Screening begins upon receipt of applications. Applications will be accepted until the position is filled. All materials should be sent to:

Dr. M. Jahanian, Chair, Department of Computer Science University of Miami P.O. Box 248014 Coral Gables, FL 33124-2481 or via email to cs-search@cs.miami.edu

University of Central Florida

Chair, Recruiting Committee

University of Central Florida

Chair, Recruiting Committee Department of Computer Science University of British Columbia Vancouver, BC V6T 1Z4 or electronically to: chair-search@mail.ucf.edu.
University of Puerto Rico at Mayagüez

College of Engineering
Electrical and Computer Engineering Department

Tenure-Track Position

The Department of Electrical and Computer Engineering of the University of Puerto Rico at Mayagüez (UPRM) invites applications for a tenure-track position in Computer Science and Computer Engineering. The Department plans to increase its overall faculty size to 18 positions by the year 2006. Applications from individuals whose research focus on the use of high-end computers to advance the frontline of science and engineering are especially encouraged.

Required qualifications for the position include a Ph.D. in relevant postdoctoral experience, evidence of significant scientific productivity, and a commitment to an integrated program of teaching and research. The successful candidate will be qualified for appointment as Assistant/Associate Professor of Computer Science or Mathematics. Interested candidates should submit a resume and a description of their research program. Applicants should also arrange for at least three letters of reference, and supporting information. Applications will begin upon receipt and will continue until the position is filled. Completed applications and/or letters of interest should be sent to the below address or to machiningresearch@uprm.edu.

Mathematics/Computer Science Search Committee
Join Institute for Computational Sciences
University of Tennessee-Oak Ridge National Laboratory
P. O. Box 208
Oak Ridge, Tennessee 37831-0208

The University of Tennessee is an equal opportunity/affirmative action employer. Applications from women and minorities are especially encouraged.

The University of Texas at Dallas

The Erik Jonsson School of Engineering and Computer Science

Department of Computer Science

Faculty Positions – System-Level Design, Computer/Processor Architecture, Trends in System and Time Scales

The Erik Jonsson School of Engineering and Computer Science at the University of Texas at Dallas invites applications for tenure-track positions in the areas of system-level design, computer architecture, computer engineering, electrical engineering and telecommunications. A narrow package in seven figure salaries has been budgeted to attract candidates for these positions. The position will be at the associate professor level with tenure in the Erik Jonsson School of Engineering and Computer Science, starting spring, summer or fall 2004. Candidates must have Ph.D. degree in Engineering, Computer Science or Computer Engineering.

The Erik Jonsson School of Engineering and Computer Science has approximately 1400 students, major programs in electrical and computer engineering, software engineering, and telecommunications engineering. The school also offers M.S. and Ph.D. degrees in electrical engineering, computer science, computer engineering, and software engineering. The Computer Science faculty is responsible for the Master’s degree in computer science and computer engineering.

The University of Texas at Dallas is an Equal Opportunity/Affirmative Action employer, employing qualified persons without regard to race, color, sex, national origin, religion, age, sexual orientation, or disability. The University of Texas at Dallas is one of the fastest growing universities in the nation, and is ranked among the top 50 universities in the nation. It is one of the top 100 research universities in the nation. The University is located in the most attractive suburban area of Dallas, approximately an hour's drive from both the Pacific Ocean and the snow-capped Cascade Mountains.

For more information, please visit the Internet webpage at www.utdallas.edu/dept/eecs or contact Duncan MacFarlane, Search Chair, at ejscs-search@utdallas.edu. Applications begin upon receipt and will continue until the positions are filled.

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University of Virginia

Department of Computer Science

General Faculty Search

The Department of Computer Science at the University of Virginia invites applications for faculty positions in all areas of computer science.

The University of Virginia is an equal opportunity/affirmative action employer. Applications from women and minorities are especially encouraged and will be given primary consideration.

For more information, please visit the Internet webpage at www.cs.virginia.edu/ for further information concerning the School or the University.

The University of Virginia

College of Engineering

Computer and Information Science Faculty Position

The Department of Computer and Information Science invites applications for a tenure-track faculty position open for fall 2004. The department’s primary recruiting emphasis is in the areas of programming languages and distributed informatics. Programming languages is broadly construed to include compiler construction, domain specific languages, program analysis, etc. Distributed informatics may include distributed database systems, web engineering, distributed document architecture, and other aspects of distributed information systems. Outstanding applicants in other areas may also be considered. Applicants must have a Ph.D. in computer science or a closely related field, a demonstrated record of excellence in research, and a strong commitment to teaching.

Tenure-Track Position

Department

Electrical and Computer Engineering

College of Engineering

Mayagüez

University of Puerto Rico at Mayagüez

UPRM’s equal opportunity affirmative action employer.

University of Tennessee & Oak Ridge National Laboratory

Joint Institute for Computational Sciences Tenure-Track Position

Assistant/Associate Professor in Mathematics or Computer Science. The Joint Institute of Computational Sciences at the University of Tennessee and the Oak Ridge National Laboratory seek to fill a tenure- and computer science at begin August 2004.

Applications from individuals whose research focus on the use of high-end computers to advance the frontline of science and engineering are especially encouraged.

Required qualifications for the position include a Ph.D. in relevant postdoctoral experience, evidence of significant scientific productivity, and a commitment to an integrated program of teaching and research. The successful candidate will be qualified for appointment as Assistant/Associate Professor of Computer Science or Mathematics. Interested candidates should submit a resume and a description of their research program. Applicants should also arrange for at least three letters of reference, and supporting information. Applications will begin upon receipt and will continue until the position is filled. Completed applications and/or letters of interest should be sent to the below address or at mathcomputescience@utk.edu.

Mathematics/Computer Science Search Committee
Joint Institute for Computational Sciences
University of Tennessee-Oak Ridge National Laboratory
P. O. Box 208
Oak Ridge, Tennessee 37831-0208

The University of Tennessee is an equal opportunity/affirmative action employer. Employing qualified persons without regard to race, color, sex, national origin, religion, age, sexual orientation, or disability. The University of Tennessee is located on the eastern border of Tennessee and is 15 miles from the Great Smoky Mountains National Park in the northeast and 25 miles from the University of Tennessee at Chattanooga in the southwest. The University is located in one of the most attractive suburban areas of Knoxville and is within a one hour drive of both the Pacific Ocean and the snow-capped Cascade Mountains.

For more information, please visit the Internet webpage at www.mathcompscisearch@jics.utk.edu. Applications begin upon receipt and will continue until the positions are filled.

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University of Virginia

Department of Computer Science

General Faculty Search

The Department of Computer Science invites applications for general teaching faculty positions. The Department is an Equal Opportunity/Affirmative Action employer. Applications from women and men are encouraged and will be given primary consideration.

For more information, please visit the Internet webpage at www.cs.virginia.edu/ for further information concerning the School or the University.

University of Virginia

Department of Computer Science

General Faculty Search

The Department of Computer Science at the University of Virginia invites applications for faculty positions in all areas of computer science.

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curriculum vitae, and statement of teaching philosophy to: James P. Cohors, Search Committee Chair School of Engineering and Applied Science University of Virginia 151 Engineer Way P. O. Box 4899 Charles City, VA 23030-4899 Email: cohus@virginia.edu Phone: 804-924-3211 The University of Virginia is an equal opportunity affirmative action employer.

The Position: The Position of Western Ontario is a top-tier research University in Canada, has received funding from the SHARCNet (www.sharcnet.ca) for a professoriate in bioinformatics. The Assistant Professor Level in bioinformatics will conduct research that involves computational techniques. Candidates should have a PhD in Computer Science or in a bioinformatics related area, and have a demonstrated record of accomplishment and potential. They will teach in the computer science department, as well as in the bioinformatics department. The University of Western Ontario is committed to employment equity and welcomes applications from all qualified candidates.

The Department: There are currently 32 tenure-track faculty members in the department. The department has a very good record in recruiting outstanding junior faculty and in providing them with a nurturing, supportive environment. The University of Western Ontario is committed to employment equity and welcomes applications from all qualified candidates.

The University of Virginia is an equal opportunity affirmative action employer.

University of Wisconsin-Milwaukee Department of Electrical Engineering & Computer Science Faculty Recruitment in Computer Science The Computer Science Program in the College of Engineering at the University of Wisconsin-Milwaukee encourages applications for faculty positions at the assistant, associate, or full professor levels in the areas of computer science, computer engineering, and computing. The Department offers an M.S. degree in computer science and an engineering curriculum for students who have a background in computing who wish to obtain a master’s degree in computer science.

Research and Teaching Responsibilities: The successful candidate will participate in teaching, research, and service activities. The successful candidate will be responsible for conducting research in areas of interest to the department and will be expected to secure external funding to support research.

Applications: Applications should be submitted online through the link at http://wsu.edu/CS/positions.html. For more information, contact the Chair of the Computer Science Department at http://wsu.edu/CS/positions.html. A Ph.D. degree in computer science, computer engineering, or closely related field is required. The review of applications will begin on October 1, 2004, and will continue until the position is filled.

The University of Texas at San Antonio

Department of Computer Science

Chair

John D. McRae, Department Chair

The University of Texas at San Antonio is an Equal Opportunity/Affirmative Action employer.

University of Wisconsin-Madison Faculty Positions in Interdisciplinary Programs The University of Wisconsin-Madison invites applications for faculty positions in interdisciplinary programs. The University of Wisconsin-Madison is committed to employment equity and welcomes applications from all qualified candidates.

Applications are invited for a position in the area of computer science and engineering at the University of Wisconsin-Madison. The position will be located in the Department of Computer Science and the Department of Electrical and Computer Engineering. The successful candidate will have a Ph.D. in computer science or a closely related field. The University of Wisconsin-Madison is committed to employment equity and welcomes applications from all qualified candidates.

The successful candidate will be expected to conduct research in areas of interest to the department and will be expected to secure external funding to support research.

Applications should be submitted online through the link at http://wsu.edu/CS/positions.html. The review of applications will begin on October 1, 2004, and will continue until the position is filled.

The University of Virginia is an equal opportunity affirmative action employer.

University of Virginia Tech

Department of Computer Science

Bioinformatics Faculty Positions

The Department of Computer Science at Virginia Tech seeks applications for several tenure-track positions in the Department of Computer Science from individuals desiring to make fundamental contributions to both computer science and the life sciences in bioinformatics, as broadly defined. Special funding from the Commonwealth of Virginia provides competitive salaries and startup funding for I/2 tenure-track faculty positions at all ranks. CS faculty in bioinformatics have access to the 2230 processor Terascale Computing Facility recently established by the university, as well as to other computing resources.

Applications are solicited for a senior position in bioinformatics and for junior positions in bioinformatics. Applicants will be expected to teach in computer science, and, when appropriate, to teach in other departments. Successful candidates at all ranks will be expected to conduct research in areas of interest to the department and will be expected to secure external funding to support research. The Virginia Tech School of Engineering and Computing Science (ECECS) at Virginia Tech is a fast-growing program that has received substantial support and has a proven history of excellence in education and research. The Virginia Tech School of Engineering and Computing Science (ECECS) at Virginia Tech is a fast-growing program that has received substantial support and has a proven history of excellence in education and research.

Applications are solicited for a senior position in bioinformatics and for junior positions in bioinformatics. Applicants will be expected to teach in computer science, and, when appropriate, to teach in other departments. Successful candidates at all ranks will be expected to conduct research in areas of interest to the department and will be expected to secure external funding to support research. The Virginia Tech School of Engineering and Computing Science (ECECS) at Virginia Tech is a fast-growing program that has received substantial support and has a proven history of excellence in education and research.
Preliminary Program

Sunday, July 11
CRA Board of Directors meeting 8:00AM - 2:45PM (begins Saturday 6PM)
Conference Registration 2:00PM - 7:30PM
Workshop for New Department Chairs 3:00PM - 6:00PM

Monday, July 12
Breakfast Buffet 7:00AM - 8:30AM
Registration 7:30AM - 6:00PM
Welcome 8:30AM - 8:40AM
Speakers: Moshe Vardi, Rice University (Academic Snowbird Chair)
Dick Waters, MERL (Labs/Centers Snowbird Chair)
PLENARY SESSION I 8:40AM - 10:00AM
Academic CS Education Après Le Crash
Chair: Moshe Vardi (Rice University)
Speakers: Maria Klawe (Princeton University)
Richard Newton (UC Berkeley)
Jeffrey Vitter (Purdue)
Break 10:00AM - 10:30AM
Workshop I (parallel sessions) 10:30AM – Noon
Computing-Related Policy Issues
Chair: Eugene Spafford (Purdue University)
Speakers: Jeff Grove (ACM)
Peter Harsha (CRA)
Others TBD
New Models for Programs in CE
Chair: James Ayler (University of Virginia)
Speakers: Srinivas Devadas (MIT)
Milos Ercegovac (UCLA)
Complexity vs. Robustness in the Information Infrastructure
Chair: Alfred Spector (IBM)
Speakers: TBD
Trends in Research Funding 1
Chair: Moshe Vardi (Rice University)
Speakers: Ron Brachman (DARPA IPTO)
Greg Andrews (NSF CISE)
Luncheon Noon - 1:30PM
PLENARY SESSION II 1:30PM - 3:00PM
Stop the Female Brain Drain
Chair: Lori Clark (UMass, Amherst)
Speaker: Joanne McGrath Cohoon (University of Virginia)
Break 3:00PM - 3:30PM
Workshop II (parallel sessions) 3:30PM - 5:00PM
Politically Incorrect, Fast-Pitch, Hardball Questions About Diversity in Computing
Chair: Bryant York (Portland State University)
Speaker: Richard Tapia (Rice University)
Implementing the Fluency Report: Models and Experience
Chair: Larry Snyder (University of Washington)
Speakers: TBD

Tuesday, July 13
Breakfast Buffet 7:00AM - 8:30AM
PLENARY SESSION III 8:30AM - 10:00AM
The Impact of IT on the US Economy
Chair: John King (University of Michigan)
Speaker: Vijay Gurbaxani (UC Irvine)
Break 10:00AM - 10:30AM
Workshop III (parallel sessions) 10:30AM – Noon
Diversity: What Works?
Chair: Lori Clark (UMass)
Speakers: TBD
The Role of Research Faculty in an Academic Department
Chair: Gerard Medioni (UC Irvine)
J Strother Moore (University of Texas at Austin)
Panelists: Rangacha Kasturi (University of South Florida)
Kathy McIlvain (Columbia)
Marc Snir (University of Illinois, Urbana-Champaign)
Expanding the Frontiers of Information Technology: The Challenge to Academic Leadership
Chair: John King (University of Michigan)
Speakers: William Aspray (Indiana University)
Jim Foley (Georgia Tech)
The Future of Industrial Research Labs
Chair: Dick Waters (MERL) [with assistance from Alfred Spector (IBM) and Moshe Vardi (Rice)]
Speakers: Peter Hart (Rice)
Alfred Spector (IBM)
David Tennenhouse (Intel)
Luncheon Noon - 1:30PM
[CRA Board Interaction with Conference Participants]
Workshop IV (parallel sessions) 1:30PM - 3:00PM
The Role of CS in Societal Applications
Chair: Valerie Taylor (Texas A&M)
Panelists: Ruzena Bajcsy (CITRIS, UC Berkeley)
Leah Jamieson (Purdue University)
Bryant York (Portland State University)
Accreditation of IT Programs
Chair: William Aspray (Indiana University)
Speakers: TBD
Grand Challenges in Trustworthy Computing
Chair: Eugene Spafford (Purdue University)
Speaker: Rich DeMillo (Georgia Tech)
Software Offshoring: Risks and Opportunities for Computing Programs
Chair: Stephen Seidman (New Jersey Institute of Technology)
Speakers: Larry Hinklestein (Northeastern); others TBD
Workshop for IT Deans 3:00PM - 9:00PM
Chair: Bobby Schnabel (University of Colorado, Boulder)
Program and Registration Information: http://www.cra.org/snowbird