

## Insightful Understanding of China's Higher Education and Research in Computer Science and Information Technology A U.S. Delegation visit to China

May 20 - June 3, 2006

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# 代表团名单

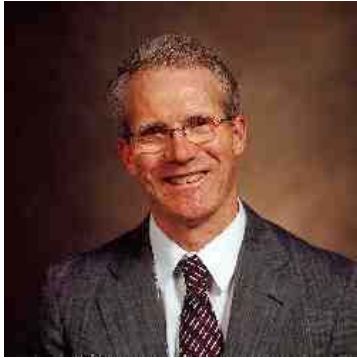
- ◆ **兰德尔. 布赖恩特**      卡内基梅隆大学  
计算机科学教授, 计算机科学学院院长
- ◆ **丛京生**      加州大学洛杉矶分校  
计算机科学教授, 计算机科学系主任
- ◆ **基思.安塞尔.玛佐罗**      加利福尼亚大学圣地亚哥分校  
计算机科学与工程教授, 计算机科学与工程系主任
- ◆ **玛莎.伊莉莎白.玻莱克**      密歇根大学  
计算机科学与电气工程教授, 电气工程与计算机科学系副主任,  
主管计算机科学与工程
- ◆ **黛布拉.理查森**      加州大学欧文分校  
信息学教授, 唐纳德.布伦信息与计算机科学院院长
- ◆ **彼得.弗里曼**      美国国家科学基金会  
副会长, 主管计算机信息科学及工程
- ◆ **弗雷德.史蒂芬.罗伯特**      拉特格斯大学  
数学教授, 离散数学与理论计算机科学中心主任
- ◆ **马克.斯尼尔**      伊里诺大学香槟分校  
计算机科学教授, 计算机科学系主任
- ◆ **玛丽.路易丝.苏菲**      弗吉尼亚大学  
计算机科学教授, 计算机科学系主任
- ◆ **奎因达.辛格.索易**      威斯康辛大学麦迪逊分校  
计算机科学教授, 计算机科学系主任

- ◆ **维勒莉.依莲.泰勒**                      得克萨斯A&M大学  
计算机科学教授，计算机科学系主任
- ◆ **布赖恩特.约克**                        波特兰州立大学  
计算机科学教授
- ◆ **张晓东**                                    俄亥俄州立大学  
计算机科学教授，计算机科学与工程系主任
- ◆ **赵伟**                                        美国国家科学基金会分部主任  
得克萨斯A&M大学  
计算机科学教授，资深协理副校长

## LIST OF DELEGATES

- Randal E. Bryant**                      Carnegie Mellon University  
Professor of Computer Science, Dean of School of Computer Science
- Jingsheng Jason Cong**                University of California, Los Angeles  
Professor of Computer Science, Chair of Department of Computer Science
- Keith Ansel Marzullo**                University of California, San Diego  
Professor of Computer Science and Engineering,  
Chair of Department of Computer Science and Engineering
- Martha Elizabeth Pollack**            University of Michigan  
Professor of Computer Science and Electrical Engineering,  
Associate Chair for Computer Science and Engineering
- Debra J. Richardson**                University of California, Irvine  
Professor of Informatics, Dean of Donald Bren School of Information and Computer Science
- Peter Freeman**                        National Science Foundation  
Assistant Director for the Computer and Information Science and Engineering Directorate
- Fred Stephen Roberts**                Rutgers University  
Professor of Mathematics, Director of Center for Discrete Mathematics and Theoretical Computer Science
- Marc Snir**                                University of Illinois, Urbana Champaign  
Professor of Computer Science, Chair of Department of Computer Science
- Mary Louise Soffa**                    University of Virginia  
Professor of Computer Science, Chair of Department of Computer Science
- Gurindar Singh Sohi**                University of Wisconsin, Madison  
Professor of Computer Science, Chair of Department of Computer Science
- Valerie Elaine Taylor**                Texas A&M University  
Professor of Computer Science, Chair of Department of Computer Science
- Bryant W. York**                        Portland State University  
Professor of Computer Science
- Xiaodong Zhang**                        Ohio State University  
Professor of Computer Science, Chair of Department of Computer Science and Engineering
- Wei Zhao**                                Professor of Computer Science  
Senior Associate Vice President for Research of Texas A&M Univ.  
Director of NSF Computer and Network Systems Division

# DELEGATES BIOGRAPHIES



**Dr. Randal E. Bryant**  
**Carnegie Mellon University**  
*Professor of Computer Science, Dean of School of Computer Science*

**兰德尔·布赖恩特 博士**  
 卡内基梅隆大学

**兰德**  
**尔·布赖恩特 博士**

兰德尔·布赖恩特是卡内基梅隆大学计算机学院院长。布赖恩特从助理教授开始,在卡内基梅隆大学从事教学研究达21年之久,现已成为富有殊荣的"University Professor" 讲座教授。

布赖恩特教授主要致力于数字逻辑电路验证方法研究。最近,他又在探讨如何将这种验证方法扩展到软件领域。他在1986发表的陈述有序二叉决策图(BDDs)的布尔运算的论文成为Citeseer计算机论文数据库中被引用次数最高的文章。此外,他还开发了在不同抽象级别(从晶体管到高层表示)上通过符号模拟验证电路的技术。

布赖恩特教授的优秀业绩得到了业界的广泛认可。他是美国电气电子工程师学会(IEEE)和美国计算机学会(ACM)的会士,美国国家工程院院士。因开发符号模型校验的突出贡献,他在1997年获得ACM Kanellakis 理论实践奖(共同获奖者Edmund M. Clarke, Ken McMillan 和 Allen Emerson),并以一篇IEEE最佳论文而获得1989年IEEE颁发的W.R.G Baker奖。

布赖恩特和大卫·欧海劳瑞(David R. O'Hallaron)共同撰写的《深入理解计算机系统(Computer Systems: A Programmer's Perspective)》一书已被全世界超过100多所大学使用,并被翻译成了中、俄两文。

1973年,布赖恩特教授在密歇根大学获得应用数学理学学士学位;1981年在麻省理工学院获得博士学位。他于1981至1984年在加利福尼亚理工学院任教;1990到1991年间,他远赴日本川崎富士通实验室任访问学者。他还曾为三个电气自动控制设计公司的创办担任过顾问委员会委员。

Randal E. Bryant is Dean of the Carnegie Mellon University School of Computer Science. He has been on the faculty at Carnegie Mellon for 21 years, starting as an Assistant Professor and progressing to his current rank of University Professor.

Dr. Bryant's research focuses on methods for formally verifying digital hardware, and more recently some forms of software. His 1986 paper on symbolic Boolean manipulation using Ordered Binary Decision Diagrams (BDDs) has the highest citation count of any publication in the Citeseer database of computer science literature. In addition, he has developed several techniques to verify circuits by symbolic simulation, with levels of abstraction ranging from transistors to very high-level representations.

Dr. Bryant has received widespread recognition for his work. He is a fellow of the IEEE and the ACM, as well as a member of the National Academy of Engineering. His awards include the 1997 ACM Kanellakis Theory and Practice Award (shared with Edmund M. Clarke, Ken McMillan, and Allen Emerson) for contributing to the development of symbolic model checking, as well as the 1989 IEEE W.R.G. Baker Prize for the best paper appearing in any IEEE publication during the preceding year.

Along with David R. O'Hallaron, he authored the textbook "Computer Systems: A Programmer's Perspective", now used in over 100 universities worldwide and translated into Chinese and Russian.

Dr. Bryant received his B.S. in Applied Mathematics from the University of Michigan in 1973, and his PhD from MIT in 1981. He was on the faculty at Caltech from 1981 to 1984. He spent the 1990-1991 academic year as a Visiting Research Fellow at Fujitsu Laboratories in Kawasaki, Japan. He has been on the advisory boards for three electronic design automation startup companies.



**Dr. Jingsheng Jason Cong**  
**University of California, Los Angeles**  
*Professor of Computer Science, Chair of Department of Computer Science,  
 Co-Director of the VLSI CAD Laboratory*

## 丛京生 博士

加州大学洛杉矶分校

计算机科学教授, 计算机科学系主任, VLSI CAD实验室负责人

丛京生教授于1985年获得北京大学计算机科学学士学位, 并分别于1987年和1990年在伊利诺伊大学厄巴纳香槟分校取得硕士和博士学位。目前, 他是加利福尼亚大学洛杉矶分校计算机科学系的教授和系主任, 并且担任VLSI CAD实验室负责人。

丛教授的研究方向包括VLSI电路的集成与布局、高可扩展VLSI设计算法和工具、可编程电路和系统的设计与集成、片上系统 ( SoC ) 设计和计算机体系结构。他已经发表了220多篇学术论文, 主持了30多个由美国国防高级研究计划局 ( DARPA )、美国国家科学基金 ( NSF )、半导体研究中心 ( SRC ) 和工业界资助的科研课题。他曾在亚洲和南太平洋设计自动化国际会议 ( ASPDAC ), 设计自动化会议 ( DAC ), 美国计算机学会 ( ACM ) 可编程逻辑电路国际研讨会 ( FPGA ), 计算机辅助设计国际大会 ( ICCAD ), 国际电路与系统年会 ( ISCAS ), 国际物理设计研讨会 ( ISPD ) 和国际低功率电路及设计研讨会 ( ISLEPD ) 等众多学术会议上担任技术委员会或执行委员会委员。在1999年至2002年期间, 他曾任《美国电气电子工程师学会 ( IEEE ) VLSI 系统期刊》副编辑。自1995起, 他一直担任《ACM电子电路自动化设计期刊》副编辑。

丛教授曾于1985年获得北京大学优秀毕业生奖, 并于1989年获伊利诺伊大学厄巴纳香槟分校的罗斯·马丁杰出科研奖。他于1993年获得NSF颁发的杰出青年科技工作者荣誉称号; 同年获得加利福尼亚大学洛杉矶分校颁发的那斯罗蒲杰出青年教师研究奖; 1998年获得ACM设计自动化专业组卓越服务奖。他还先后三次获得最佳论文奖, 其中包括1995年《IEEE计算机辅助设计期刊》最佳论文奖、2005年国际物理设计研讨会 ( ISPD ) 最佳论文奖、2005年《ACM电子电路自动化设计期刊》最佳论文奖。此外, 他还获得2000年半导体研究中心 ( SRC ) 的发明家荣誉奖 和卓越技术奖, 并于2000年成为了IEEE会士。

1993年至1999年, 丛教授曾任ACM设计自动化专业组顾问委员。2001年至2004年, 他担任IEEE电路和系统分会理事会理事。丛教授还受聘于众多电子设计自动化及silicon IP公司的技术顾问委员会, 包括Atrenta、eASIC、Get2Chip、Magma Design Automation和 Ultima Interconnect Technologies。他创办了Aplus Design公司, 直到该公司被Magma 公司收购之前, 他一直担任总裁。目前, 他兼任Magma公司的技术总顾问。自2000年起, 他还受聘于北京大学担任客座教授。

Jason Cong received his B.S. degree in computer science from Peking University in 1985, his M.S. and Ph. D. degrees in computer science from the University of Illinois at Urbana-Champaign in 1987 and 1990, respectively. Currently, he is a Professor and Chairman of the Computer Science Department of University of California, Los Angeles, and co-director of the VLSI CAD Laboratory.

His research interests include synthesis and layout of VLSI circuits, highly scalable VLSI design algorithms and tools, design and synthesis of programmable circuits and systems, system-on-a-chip designs, and computer architectures. He has published over 220 research papers and led over 30 research projects supported by DARPA, NSF, SRC, and a number of industrial sponsors in these areas. He served on technical program committees and executive committees of many professional conferences, such as ASPDAC, DAC, FPGA, ICCAD, ISCAS, ISPD, and ISLEPD. He served as an Associate Editor for IEEE Trans. on VLSI Systems from 1999 to 2002, and has been an Associate Editor of ACM Trans. on Design Automation of Electronic Systems since 1995.

Dr. Cong received the Best Graduate Award from the Peking University in 1985, and the Ross J. Martin Award for Excellence in Research from the University of Illinois at Urbana-Champaign in 1989. He received the NSF Young Investigator Award in 1993, the Northrop Outstanding Junior Faculty Research Award from UCLA in 1993, and the ACM/SIGDA Meritorious Service Award in 1998. He has received three best paper awards, including the 1995 IEEE Trans. on CAD Best Paper Award, the 2005 International Symposium on Physical Design Best Paper Award, and the 2005 ACM Transaction on Design Automation of Electronic Systems Best Paper Award. He also received the SRC Inventor Recognition Award and the SRC Technical Excellence Award both in 2000. He was elected to an IEEE Fellow in 2000.

Dr. Cong served on the ACM SIGDA Advisory Board from 1993 - 1999. He served on the Board of Governors of the IEEE Circuits and Systems Society during 2001 - 2004. Dr. Cong also has served or is serving on the Technical Advisory Board of a number of EDA and silicon IP companies, including Atrenta, eASIC, Get2Chip, Magma Design Automation, and Ultima Interconnect Technologies. He was the founder and president of Aplus Design Technologies, Inc., until it was acquired by Magma Design Automation in 2003. Currently, he serves as the Chief Technologist Advisor of Magma. He is also a Guest Professor of Peking University since 2000.



**Dr. Keith Ansel Marzullo**  
*University of California, San Diego*  
*Professor of Computer Science and Engineering,*  
*Chair of Department of Computer Science and Engineering*

**基思·安塞尔·玛佐罗 博士**

加利福尼亚大学圣地亚哥分校  
 计算机科学与工程教授, 计算机科学与工程系主任

玛佐罗教授1975年获西方学院物理学专业硕士学位, 优等毕业生; 后获斯坦福大学应用物理专业硕士学位,

其导师为皮特·斯拉教授；1984年获斯坦福大学电子工程专业博士学位，其导师为苏珊·欧维奇教授。

2003年至今，玛佐罗任加利福尼亚大学圣地亚哥分校教授；1993年至2003年，加利福尼亚大学圣地亚哥分校副教授；ISIS 分布式系统董事会成员（1992-1993）、副主席（1988-1992）；康奈尔大学计算机系副教授（1992-1993）、助理教授（1986-1992）；1984年至1986年，施乐公司(Xerox) 系统开发部主要成员，程序员。

玛佐罗教授的研究领域包括分布式计算原理及其在实时系统中的应用，特别是容错系统研究。在拓展现有研究的基础上，他正在开创新的容错原理，并将其应用到现代实用系统中，包括网格服务、基于TCP的服务、可承受从属失效的系统及广域服务。他当前正在从事两个主要研究课题：课题之一，Phoenix，一个可应对因特网瘫痪的端到端文件备份系统；课题之二为可用以检测与隔离被入侵路由器的链路状态路由选择协议。

的端到端文件备份系统；课题之二为可用以检测与隔离被入侵路由器的链路状态路由选择协议。

Education: Ph.D., Stanford University, Stanford, CA. Electrical Engineering, Prof. Susan Owicki, advisor (1984); M.S. Stanford University, Stanford, CA. Applied Physics, Prof. Peter Sturrock, advisor; A.B., Magna Cum Laude and department honors, Occidental College, Los Angeles, CA. Physics (1975).

Professional Experience: Professor (2003-current) and Associate Professor (1993-2003), UC San Diego, La Jolla, CA; (1992-1993) Member of the Board and (1988-1992) Vice-President, ISIS Distributed Systems, Ithaca, NY; Associate Professor (1992-1993) and Assistant Professor (1986-1992), Computer Science Department, Cornell University, Ithaca, NY; (1984-1986) Principal Member, Programming Staff, Xerox System Development Dept., Palo Alto, CA.

Keith Marzullo is interested in the principles of distributed computing and their application to real systems. He has a particular focus on fault tolerance. He has recently been working on discovering new and extending known fault-tolerance principles to apply to modern realistic systems, including Grid services, TCP-based services, systems that can suffer dependent failures, and wide-area services. Two current implementation projects he is working on are Phoenix, which is a peer-to-peer file backup service that is designed to tolerate Internet catastrophes, and a link state routing protocol that detects and isolates routers that have been compromised.



**Dr. Martha Elizabeth Pollack**

*University of Michigan*

*Professor of Computer Science and Electrical Engineering, Associate Chair for Computer Science and Engineering*

玛莎·伊莉莎白·玻莱克 博士

密歇根大学

计算机科学与电气工程教授, 电气工程与计算机科学系副主任

玻莱克教授自2000年起即在密歇根大学电气工程与计算机科学系任教授, 目前主持该系的计算机科学与工程研究与教学。

此前, 她曾先后担任SRI国际公司智能中心技术员、匹兹堡大学计算机科学系教授与“智能系统”项目负责人。她于1979年在达特茅兹学院获语言学学士学位, 而后分别于1984年和1986年获宾西法尼亚大学信息科学硕士和博士学位。

玻莱克教授先后发表了120多篇学术著作, 并获得了多项学术荣誉。1996年, 她当选美国人工智能学会会士; 1991年获“计算机与思想奖”; 1992年获国家科学基金会(NSF) 杰出青年科技工作者荣誉称号; 2000年获匹兹堡大学杰出研究奖。1997年, 玻莱克教授担任人工智能领域的主要国际会议IJCAI的程序主席, 并担任《人工智能学报》、《人工智能杂志》、《自主代理与多代理系统》、《计算语言学》的编委会成员。在2000年到2004年间, 她还受聘《人工智能研究学报》主编。

玻莱克教授的研究得到包括NSF, 国防部高级研究计划局(DARPA), 美国空军科学研究办公室, 英特尔公司等单位的慷慨资助。这些研究在包括约束满足处理和时序推理、自动计划生成、识别及执行、认知模型、自然语言处理等人工智能领域产生了广泛影响。同时, 玻莱克教授还领导与推动了认知障碍者辅助工具技术的设计与研发, 并在美国国家研究委员会该研究的专项委员会中担任委员, 负责向美国参议院老年委员会申报该项研究的影响与作用。此外, 玻莱克教授还积极投身各种旨在推动妇女和少数族裔参与科技研究的公益活动。

Dr. Pollack currently chairs the Computer Science and Engineering Division within the Department of Electrical Engineering and Computer Science at the University of Michigan, where she has been a professor since 2000. She was previously Professor of Computer Science and Director of the Intelligent Systems at the University of Pittsburgh and prior to that was a member of the technical staff at the Artificial Intelligence Center at SRI International in Menlo Park, CA. She received her bachelor's degree in linguistics from Dartmouth College in 1979, and her M.S. and Ph.D. degrees in computer and information science, from the University of Pennsylvania, in 1984 and 1986, respectively.

The author or co-author of more than 120 technical publications, Dr. Pollack has received a number of professional honors. She is a Fellow of the American Association for Artificial Intelligence (elected in 1996), and a recipient of the Computers and Thought Award (1991), an NSF Young Investigator's Award



(1992), and the Univ. of Pittsburgh Chancellor's Distinguished Research Award (2000). In 1997, she was program chair for IJCAI, the major international conference on artificial intelligence, and she is or has been on the editorial boards of the *Artificial Intelligence Journal*, *AI Magazine*, the *Journal of Autonomous Agents and Multi-Agent Systems*, *Computational Linguistics* and the *Journal of Artificial Intelligence Research*, for which she also served as Editor-in-Chief from 2000 to 2004.

Pollack, whose research has been funded by the National Science Foundation, DARPA, the Air Force Office of Scientific Research, and the Intel Corporation, amongst others, has made significant research contributions to the field of Artificial Intelligence, including work on constraint satisfaction processing and temporal reasoning; automated plan generation, recognition, and execution; cognitive modeling; and natural language processing. She has also been in a leader in the design and development of assistive technology for people with cognitive impairment, and has both served on a panel of the National Research Council addressing this class of technology, and testified on its importance before the United States Senate Special Committee on Aging.

Dr. Pollack has also been active in programs aimed at increasing the representation of women and minorities in science and engineering.



**Dr. Debra J. Richardson**  
*University of California, Irvine*  
*Professor of Informatics, Dean of Donald Bren School of*  
*Information and Computer Sciences*

**黛布拉·理查森 博士**

加州大学欧文分校  
 信息学教授, 唐纳德·布伦信息与计算机学院院长

理查森博士, 现任加州大学欧文分校唐纳德·布伦信息与计算机学院院长, 信息学教授。她相信, 只有努力提高学院排名并加强建设基础设施, 才能打造一个真正充满活力的学术研究机构, 以满足本地社区与工业界的需求, 并为全球经济做出贡献。为此, 她投入了大量的时间和精力组建一流水平的教研计划, 设计内容广泛的交叉学科课程, 吸引最优秀的老师和学生。在理查森教授的努力下, 信息与计算机学院赢得了2000万美元的捐赠。

理查森教授于1987年来到加州大学欧文分校, 并于2000年7月被任命为当时的信息与计算机科学系主任。在她的领导下, 该系于2002年12月被提升为加州大学历史上的第一个计算机学院。她也于2003年1月被任命为新学院的Ted and Janice Smith讲座院长。

理查森教授倡导女性以及其他少数群体参与计算与信息技术领域的研究。她是Ada Byron计算与信息技术多样性研究中心的主任。该中心通过各种各样的研究、顾问、指导和宣传活动来提升计算机科学、工程、数字媒体和相关信息技术领域的多样性。理查森教授还是妇女与信息技术国家中心领导团队中的一个活跃成员。目前, 她是加州南部科罗拉多梅萨奥林奇地区女子协会 (Girls Inc.) 的理事会成员。该非盈利组织以促进妇女和少女对计算和技术的参与为使命。她还是美国技术妇女联合会执行委员会会员, 积极帮助计算和技术领域内女性的事业发展。她是奥林奇地区大学科学工作者成就奖基金会 (ARCS) 的理事会成员。该基金会以奖学金的形式帮助最优秀和最具潜力的学生成为科学家和工程师。理查森教授还是 Cotelligent公司 (一个领先的移动商务方案提供商) 和 Watchit Media公司 (一个领先的窄播技术提供商) 的董事会成员。

理查森教授是“基于规定的测试”研究领域的开拓和领导者, 使用形式方法来指导软件测试。她目前的工作集中在把该技术应用于软件开发周期的各个阶段, 从需求和结构分析到操作和演化。她开发了领先的高端工具, 并与多家公司合作研发提高关键软件系统质量的技术。理查森于1976年获得加州圣地亚哥大学数学学士学位; 于1978和1981年分别获麻萨诸塞大学计算机和信息科学硕士和博士学位。

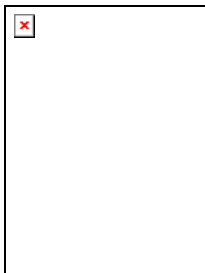
Debra J. Richardson, professor of Informatics and dean of the Donald Bren School of Information and Computer Sciences, is committed to raising ICS' rankings and building an infrastructure to support a dynamic academic and research school that meets the demands of the local community and industry and contributes to the global economy. She has dedicated enormous time to ensuring that UCI's computer science program is top tier, encompassing a broad and interdisciplinary curriculum, while attracting the best and brightest students and faculty. To that end, Richardson was instrumental in securing a \$20 million endowment for the school.

Richardson came to UCI in 1987 and was appointed chair of the then-department of ICS in July 2000. Under her leadership, the department was promoted to the first computer science school in University of California history in December 2002. She was named the Ted and Janice Smith Dean of the new school in January 2003.

Committed to increasing the participation of women and other underrepresented groups in computing and information technology, Richardson serves as director of the Ada Byron Research Center for Diversity in Computing and Information Technology whose mission is to study and

promote diverse perspectives in computer science, engineering, digital media and related information technology fields through a variety of research, mentoring and outreach activities. She is an active member of the Leadership Team of the National Center for Women and Information Technology. Currently, she sits on the board of trustees for Girls, Inc., Orange County, a non-profit association devoted to advancing women and girls in computing and technology; the executive advisory board of the Association for Women in Technology, a nonprofit organization of women devoted to the advancement of women working in computing and technology; the board of trustees of the Orange County Chapter of ARCS (Achievement Rewards for College Scientists) Foundation, which raises scholarship funds dedicated to helping the best and brightest students achieve as scientists and engineers; and the board of directors of Cotelligent, Inc., a leading provider of mobile business solutions, and Watchit Media, Inc., leading provider of narrowcasting technology.

A leader in her research field, Richardson pioneered research in "specification-based testing," whereby formal methods are employed to guide software testing. Her current work focuses on enabling specification-based testing technology throughout the software lifecycle, from requirements and architecture analysis through operation and evolution. She has developed leading edge tools, and has worked with several companies in adopting technology to improve the quality of critical software systems. Richardson received her B.A. in Mathematics from the University of California at San Diego in 1976 and the M.S. and Ph.D. in Computer and Information Science at the University of Massachusetts in 1978 and 1981, respectively.



**Dr. Peter Freeman,**

*Assistant Director for the Computer and Information Science and Engineering Directorate, NSF*

彼得·弗里曼 博士

美国国家科学基金会副会长，主管计算机信息科学及工程

弗里曼教授于2002年5月被委任为美国国家科学基金会 (NSF) 副会长，主管计算机信息科学及工程。此前自1990年始，他在佐治亚理工学院任教授和该校计算学院创院首任院长。在佐治亚理工学院，他担任John P. Imlay, Jr. 首席讲座院长，是该校被授予如此殊荣的第一人。他还连续三年兼任该校信息总监 (CIO)。作为一名校领导，他活跃于组织各种校级活动。他曾帮助学校在一次筹款活动中成功筹资7亿美元，还是 "Yamacraw 经济发展行动" 的策划人之一。他全面负责该校1996年奥运村技术筹备组的 "未来网络" 项目；作为该项目的成果之一，佐治亚理工建成了覆盖全校的高性能校园宽带网。1998年，他主持了 "萨姆·纳国民银行时政论坛之信息安全分会"。会后，佐治亚理工信息安全中心应运而生，成为美国最早建立的综合性信息安全中心之一。自1989年到1990年，弗里曼教授被乔治梅森大学特聘为杰出客座教授。1987年到1989年，他在NSF计算机与计算科学分部担任主任。在加入佐治亚理工之前，他在加州大学欧文分校信息与计算机科学系任教达20年之久。

弗里曼教授是《美国信息技术领域人力资源供求》一书的作者之一，是《深入理解软件：系统即信息》和《软件系统基本原理》的作者，还发表了大量学术论文。他同时还是4本著作的编辑或者副编辑，包括《软件重用性》和《软件设计技术 (第四版)》。他是《McGraw-Hill 软件工程与技术系列期刊》的创刊编辑，为多个学术期刊担任编委会成员，兼任众多会议的程序委员会委员，并经常为工业、学术和政府部门提供顾问。在1988年到2002年间，弗里曼教授在计算研究协会 (CRA) 董事会担任政府事务委员会副主席和主席。他是美国国税局和联邦航空局航空交通控制现代化项目的审查专责委员会委员，并在多个全国性和地方性的委员会任职。在NSF供职期间，他主导规划了联邦政府高性能计算与通信计划。弗里曼教授是IEEE、美国科学促进会 (AAAS) 和ACM的会士。1970年，他获得卡内基梅隆大学计算机科学博士学位；1965年获克萨斯大学奥斯汀分校数学和心理学硕士学位；1963年获莱斯大学物理学学士学位。软件系统和开发是他主要的研究方向和技术专长。早在操作系统和其它支持软件投入使用之前，他就在1961年到1963年期间启动了高级科学应用软件的开发。沿着他的早期研究方向，他在1964年设计和建成了算得上最早的互动分时操作系统，并在1965年到1975年间率先将人工智能技术应用到软件设计过程。

在被联合国派驻海外进行了一段教学工作之后，弗里曼教授开始潜心研究软件工程。由于他的先导性贡献，他被遴选为IEEE会士。他同瓦色尔曼教授合作编写了最早的软件设计课程，培训了成千上万的工业界从业者。两位教授共同撰写的软件工程入门教材也受到广泛欢迎。弗里曼教授这一时期的研究以软件重用，特别是形式变换系统的使用为核心。因这一研究成果的应用，好几家公司由而成。1987年，弗里曼教授从加州大学被借调到NSF。他由此开始研究国家政策和地方行动对计算科学的影响。在担任佐治亚理工计算学院院长期间，他还主持了一个NSF支持的全国信息技术人力资源短缺情况研究，发起了一个信息技术和计算机科学院院长协联组织，还发表了数篇探讨计算领域未来发展方向的论文。

Peter A. Freeman became Assistant Director for the Computer and Information Science and Engineering Directorate (CISE) on May 6, 2002. He was previously at Georgia Institute of Technology as professor and founding Dean of the College of Computing since 1990. He served in that capacity as the John P. Imlay, Jr. Dean of Computing, holding the first endowed Dean's Chair at Georgia Tech. He also served as CIO for the campus for three years. In addition, as a general officer of the campus, he was heavily involved in planning and implementing a wide range of activities for the campus including a successful \$700M capital campaign and the Yamacraw Economic Development Mission. He was in charge of the FutureNet Project, part of the campus technology preparations for the 1996 Olympic Village, that resulted in a very high-performance and broad campus network. In 1998, he chaired the Sam Nunn NationsBank Policy Forum on Information Security which lead to the creation of the Georgia Tech Information Security Center, one of the first comprehensive centers in the country focused on information security. During 1989-90 Dr. Freeman was Visiting Distinguished Professor of Information Technology at George Mason University in Fairfax, Virginia, and from 1987 to 1989 he served as Division Director for Computer and Computation Research at the National Science Foundation. He served on the faculty of the Department of Information and Computer Science at the University of California, Irvine, for almost twenty years before coming to Georgia Tech.

He co-authored The Supply of Information Technology Workers in the United States (CRA, 1999) and authored Software Perspectives: The System is the Message (Addison Wesley, 1987), Software Systems Principles (SRA, 1975), and numerous technical papers. In addition, he edited or co-edited four books including, Software Reusability (IEEE Computer Society, 1987), and Software Design Techniques, 4th edition (IEEE Press, 1983). He was the founding editor of the McGraw-Hill Series in Software Engineering and Technology, has served on several editorial boards and numerous program committees, and was an active consultant to industry, academia, and government. Dr. Freeman was a member of the Board of Directors of the Computing Research Association (1988-2002), serving as Vice-Chair and Chair of the Government Affairs Committee. He was a member of select review committees of the IRS and FAA Air-traffic Control modernization efforts, and has served on a variety of national and regional committees. While at NSF, he helped formulate the High-Performance Computing and Communications Initiative of the Federal government.

Dr. Freeman is a Fellow of the IEEE (Institute for Electrical and Electronics Engineers), AAAS (American Association for the Advancement of Science), and the ACM (Association for Computing Machinery). He received his Ph.D. in computer science from Carnegie-Mellon University in 1970, his M.A. in mathematics and psychology from the University of Texas at Austin in 1965, and his B.S. in physics from Rice University in 1963. His research and technical expertise has focused on software systems and their creation. His earliest work (1961-63) involved developing advanced scientific applications in the days before there were operating systems and other support software. This led him to design and build one of the earliest interactive time-sharing operating systems (1964) and ultimately to early work applying artificial intelligence to the design process for software (1965-75). This culminated with the publication of his first book, *Software System Principles* (SRA, 1975).

After a short stint teaching overseas for the United Nations, he focused his work on software engineering, ultimately being recognized for this early work by being elected a Fellow of the IEEE. Along with Prof. A. I. Wasserman, he developed one of the first software design courses (taken by thousands of industry practitioners) and published a highly popular text that served as a first introduction to software engineering. His research during this period focused on reusable software, especially using formal transformation systems. That work has resulted in several startup companies. Since 1987 when he was "loaned" by the University of California to the National Science Foundation, he has focused his attention on national policy and local action intended to advance the field of computing. In addition to his many activities as dean at Georgia Tech, he headed an NSF-funded national study of the IT worker shortage (<http://www.cra.org/reports/wits/cra.wits.html>), started an active group for Deans of IT & Computing, and published several papers relative to future directions of the field.





**Dr. Fred Stephen Roberts, Rutgers University**

*Professor of Mathematics, Director of Center for Discrete Mathematics and Theoretical Computer Science*

**弗雷德·史蒂芬·罗伯特 博士**

拉特格斯大学

罗伯特教授于1964年在达特茅斯大学 (Dartmouth) 获得数学学士学位，并分别于1967年和1968年在斯坦福大学获得数学硕士与博士学位。此后，罗伯特教授获得了宾夕法尼亚大学和普林斯顿前沿学科研究所的博士后奖学金，并在RAND公司工作，最后加入拉特格斯大学担任教授职务。罗伯特教授在拉特格斯大学兼任多个职务，其中包括数学系教授，运筹研究中心会士，以及下列五个方向的研究生导师：数学、运筹研究、计算分子生物学、BioMaPS (涉及生物学，数学与物理科学的交叉学科) 与教育学。1996年1月，罗伯特被任命为离散数学与理论计算机科学中心 (DIMACS) 主任。该中心是由美国国家科学基金会 (NSF) 资助组建的，全球范围内独一无二的计算机科学研究中心，为全世界的计算机科学家提供丰富的技术资源。该中心同时也是美国高校与工业界合作的成果之一，其合办者有AT&T实验室、贝尔实验室/朗讯科技、Telcordia科技、NEC美国实验室、普林斯顿大学和罗格斯大学。曾和该中心有过合作关系的单位还包括Avaya实验室、惠普实验室、IBM研究中心、微软研究中心、佐治亚理工学院、仁斯理理工学院和史蒂文理工学院等。

罗伯特教授的主要研究方向包括：社会学、生物学、环境科学和流行病学的数学和计算建模；通信、传输和安全等问题的数学与计算建模；图论及其应用；测量、效用、投票以及决策学等。他的第一本著作《离散数学模型及其在社会学、生物学和环境科学中的应用》被公认为这一领域的经典教材，并于1986年被翻译成俄语出版。他的其他三本重要著作分别是《图论与其在社会学中的应用》、《测量理论及其在决策，效用和社会科学中的应用》和《组合数学应用》。其中《组合数学应用》一书于2004年再版发行（共同作者：巴里·苔斯曼），内容扩充到800页，补充了许多关于现代应用的讨论。此外，罗伯特教授还参与了其他17本著作的写作，题材包括计算机与通讯网络的稳定性研究、计算生物学、安全信息工程学、初级离散数学等。迄今为止罗伯特教授已经发表了150多篇学术论文。

罗伯特教授一直致力于将计算机科学和数学理论推广到其他领域。他曾经组织过50多次科学研讨会，以及多年的离散数学与理论计算机科学专题系列研讨会。探讨包括计算分子生物学、计算与社会经济学、计算与数学的流行病学等在内的跨学科问题。在他的努力推动下，计算机专家与生物学、社会学和环境科学的专家们在这些系列研讨会中达成了长期有效的合作关系。

罗伯特教授的突出贡献为他赢得了许多荣誉和奖励，其中包括：捷克共和国数学家与物理学家纪念奖章、美国计算机协会算法与计算理论兴趣组杰出成就奖以及美国国家科学基金会科技中心杰出贡献奖。

FRED S. ROBERTS received his A.B. in mathematics from Dartmouth in 1964 and his M.S. and Ph.D. in mathematics from Stanford in 1967 and 1968. He received postdoctoral fellowships at University of Pennsylvania and the Institute for Advanced Study (Princeton) and worked at the RAND Corporation before joining the faculty at Rutgers University, where he is a Professor of Mathematics, a Fellow of the Center for Operations Research, and a member of five graduate faculties: Mathematics, Operations Research, Computational Molecular Biology, BioMaPS (Ph.D. Program at the Interface between the Biological, Mathematical, and Physical Sciences) and Education. In January 1996, he was named the Director of DIMACS, the Center for Discrete Mathematics and Theoretical Computer Science. A unique research center in computer science and a resource for computer scientists around the world, DIMACS was founded as a prestigious National Science Foundation Science and Technology Center and is a joint university-industry project of AT&T Labs - Research, Bell Labs/Lucent Technologies, Telcordia Technologies, NEC Laboratories America, Princeton University, and Rutgers, with partners at Avaya Labs, HP Labs, IBM Research, Microsoft Research, Georgia Institute of Technology, Rensselaer Institute of Technology, and Stevens Institute of Technology.

Professor Roberts' major research interests are in mathematical and computational models in the social, biological, environmental, and epidemiological sciences and of problems of communications, transportation, and security; graph theory and its applications; and measurement, utility, voting, and decisionmaking. His first book, *Discrete Mathematical Models, with Applications to Social, Biological, and Environmental Problems*, has been called a classic in the field, and was translated into Russian in 1986. He has also authored three other books: *Graph Theory and its Applications to Problems of Society*; *Measurement Theory, with Applications to Decisionmaking, Utility, and the Social Sciences*; and *Applied Combinatorics*. An 800-page second edition of the latter (jointly with Barry Tesman), emphasizing modern applications, was published in 2004. Professor Roberts is also the editor of 17 other books covering such varied topics as reliability of computer and communication networks, computational biology, security informatics, and precollege discrete mathematics, and the author of over 150 scientific articles.

Professor Roberts has been a leader in focusing the computer science and mathematics communities on outreach to other areas. He has been an organizer of some 50 scientific conferences, and has organized multi-year DIMACS Special Focus programs on Computational Molecular Biology, on Computation and the Socio-Economic Sciences, and on Computational and Mathematical Epidemiology, during which he has been instrumental in fostering lasting collaborations between computer scientists and biological, social, and environmental scientists.

Among his honors and awards, Professor Roberts has received the Commemorative Medal of the Union of Czech Mathematicians and Physicists, the Distinguished Service Award of ACM-SIGACT (Association of Computing Machinery Special Interest Group on Algorithms and Computation

Theory), and the National Science Foundation Science and Technology Centers Pioneer Award.



**Dr. Marc Snir, University of Illinois, Urbana Champaign**  
*Professor of Computer Science, Chair of Department of Computer Science*

马克·斯尼尔 博士

伊利诺大学香槟分校

斯尼尔教授是Michael Faiman和Saburo Muroga计算机科学讲座教授, 并自2001年秋季起担任伊利诺大学香槟分校的计算机科学系主任。他的主要研究方向是高性能计算系统的体系结构与编程环境。在加入伊利诺大学香槟分校之前, 斯尼尔教授在IBM研究中心供职达15年之久。在他的领导下, IBM研制开发出在上个十年占主导地位的可扩展的并行机系统。他还是IBM“蓝色基因”项目的企划带头人。斯尼尔教授被授予IBM技术学院院士资格, 并获得过IBM总部奖章及两次卓越技术贡献奖。斯尼尔教授参与了IBM的许多重大研究项目, 并主持IBM高等院校合作项目的审查工作。

斯尼尔教授1979年毕业于耶路撒冷的希伯来大学, 获数学博士学位; 1980年到1982年间在纽约大学从事超超级计算机(当时最著名的并行计算机研究项目)的研究与开发; 1982年到1986年间回到耶路撒冷的希伯来大学, 之后就加入了IBM公司。斯尼尔教授是IBM MPI并行编程语言的主要设计人, 该技术是目前公认的编写扩展性并行应用的工具。迄今为止斯尼尔教授已参与出版了两本著作, 发表了100多篇论文, 受邀进行的学术演讲不胜枚举。他的研究也扩展到理论计算机、并行计算机设计、并行算法与工具、并行处理库与编程环境等诸多课题。

斯尼尔教授同时是美国计算机协会(ACM)与美国电气电子工程师学会(IEEE)的会士。他在美国国家科学研究委员会(NRC)近期启动的未来超级计算机研究项目中担任共同主席职务。作为国家科学研究委员会的专家组成员, 他指导了美国国家航空航天局(NASA)的原创突破性技术计划(PRT, Pioneering Revolutionary Technology), 和美国国家安全委员会(NSC)的高性能计算项目。此外, 斯尼尔教授还是北美计算机研究协会(CRA)的理事会成员之一

Professor Marc Snir is Michael Faiman and Saburo Muroga Professor of Computer Science and Head of the Computer Science Department at the University of Illinois at Urbana-Champaign since Fall 2001. He is pursuing research on architectures and programming environments for High-Performance Computing systems. Before joining UIUC he spent fifteen years at IBM Research. He led the research that resulted in the IBM SP scalable parallel system product - the leading IBM supercomputer product of the last decade -- and initiated the IBM Blue Gene project. He was member of the IBM Academy of Technology and received an IBM Corporate award and two IBM Outstanding Technical awards. He was involved in several major task forces, and led a review of IBM's University Programs.

Marc Snir received a Ph.D. in Mathematics from the Hebrew University of Jerusalem in 1979, worked at NYU on the NYU Ultracomputer project in 1980-1982 (a leading parallel computer research project at the time), and worked at the Hebrew University of Jerusalem in 1982-1986, before joining IBM. Marc Snir was a major contributor to the design of the Message Passing Interface that is now almost universally used to code scalable parallel applications. He has co-authored two books and has published over 100 papers and given many presentations. His research has spanned over the years theoretical computer science, the design of parallel computers, parallel algorithms and tools, libraries and programming environments for parallel processing.

Marc Snir is ACM Fellow and IEEE Fellow. He was co-chair of a recent NRC study on the Future of Supercomputing, member of an NRC panel on NASA's PRT program, and member of a panel on High Performance Computing for the National Security Community. He is on the Board of the Computing Research Association.



**Dr. Mary Louise Soffa, University of Virginia**  
*Professor of Computer Science, Chair of Department of Computer Science*

## 玛丽·路易丝·苏菲 博士

弗吉尼亚大学

苏菲教授拥有数学学士和硕士学位及计算机科学博士学位。1977至2004年间，苏菲教授在匹兹堡大学担任计算机科学教授。其间从1991至1996年她还担任匹兹堡大学文理学院研究生院院长。2004年她加入弗吉尼亚大学计算机科学系，享受Owen T. Cheatham 教授津贴，并任系主任。

1999年，苏菲教授获得克林顿总统授予的杰出科学、数学和工程教师总统奖。同年，她被推选为美国计算机协会(ACM) 会士，又于2003年被选为女童军 ( Girl Scout ) 杰出妇女。她在计算研究协会(CRA) 理事会任职达10年之久。目前她还是计算研究协会妇女分部 ( CRA-Woman ) 的成员。该分部旨在关注和提升妇女在计算机科学和工程领域中的地位。苏菲教授曾是ACM软件兴趣组和编程语言兴趣组 (SIGPLAN) 执行委员会委员。除此之外她还担任过十多个学术会议的大会主席，组织委员会主席或成员。2006年5月即将在上海召开的软件工程国际会议上，苏菲博士将担任组织委员会共同主席。苏菲博士在许多学术会议和大学作过精彩的演讲，其中包括第五届高质软件国际会议、编译程序构造会议、静态分析研讨会、伊利诺伊大学、马里兰大学、圣母大学、石溪大学及密西根大学等。

苏菲教授的研究兴趣包括编译程序、优化、软件工程、程序分析、程序调试测试工具软件等。她已有140多篇学术论文在期刊、会议中发表，其中多篇学术论文获得了最佳论文奖。20年中她最有影响力的40篇论文之一即将发表在程序语言设计和实现会议上。迄今为止，她指导了共23名博士生，其中许多在一流的科研高校任职，包括加州大学伯克利分校、乔治亚理工学、马里兰大学、亚利桑那和德拉威尔大学等。

### 苏菲 博士

Mary Lou Soffa received her B.S. and M.S. in Mathematics and her Ph.D. in Computer Science. From 1977 to 2004, she was a Professor of Computer Science at the University of Pittsburgh. She served as the Dean of Graduate Studies in the College of Arts and Sciences at the University of Pittsburgh from 1991 to 1996. In 2004, she moved to the Department of Computer Science at the University of Virginia, where is the Owen T. Cheatham Professor and Department Chair of the Computer Science Department at the University of Virginia.

In 1999, she received the Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring, given by the President Clinton. She was elected an ACM Fellow in 1999 and selected as a Girl Scout Woman of Distinction in 2003. She served for ten years on the Board of the Computing Research Association (CRA) and currently is a member of CRA-W, the committee on the status of women in computer science and engineering of the Computing Research Association. She has served on the Executive Committees of both ACM SIGSOFT and SIGPLAN as well as conference chair, program chair or program committee member of many conferences. Currently, she is the program Co-chair for the International Conference on Software Engineering to be held in Shanghai, China in May 2006. She has been a distinguished speaker at a number of conferences and universities including the Fifth International Conference on Quality Software, Compiler Construction Conference, Static Analysis Symposium, University of Illinois, the University of Maryland, Notre Dame, Stony Brook, and the University of Michigan.

Her research interests include compilers, optimizations, software engineering, program analysis, and software tools for debugging and testing programs. She has published over 140 papers in journals and conferences. Her papers have received a number of best paper awards as well one of the 40 most influential papers in 20 years to appear in the Programming Language Design and Implementation Conference. She has directed 23 Ph.D. students to completion. Her former Ph.D. students are professors in major universities including the University of California at Berkeley, Georgia Tech, the University of Maryland, the University of Arizona and the University of Delaware.



**Dr. Gurindar Singh Sohi, University of Wisconsin, Madison**  
*Professor of Computer Science, Chair of Department of Computer Science*

奎因达·辛格·索易 博士

威斯康辛大学麦迪逊分校

索易教授在伊利诺伊大学获得电子与计算机工程专业博士学位，自1985年起一直在威斯康辛大学麦迪逊分校任教。目前他是计算科学系主任兼教授。

索易教授的主要研究方向是高性能计算机系统的设计。他参与发表的论文与拥有的专利不仅影响了业内科研工作者，而且推动了商用微处理器的研发。在他的一篇题为《用于高性能、可中断流水处理器的指令发送逻辑》的论文中（发表于1987年国际计算机体系结构研讨会ISCA），他提出了一个崭新的模型，描述支持动态调度及精确中断的处理器，该模型已被一些微处理器生产商广泛采纳使用。此外，共有120多个美国专利引用过这篇论文以及它在1990年3月发表在IEEE计算机通讯的期刊版本。索易教授的另一篇论文《可用于超级计算器的宽带数据存储系统》（发表于1991年编译器和操作系统系统结构支持研讨会（ASPLOS））提出的非阻塞缓冲概念在很大程度上促进了高端微处理器从阻塞型到非阻塞型的转换。90年代早期，索易教授还分别在其两篇国际计算机体系结构研讨会（ISCA）论文中提出了多标量处理器概念以及线程间推测方法（分别为1992年的《通过可扩展的窗口分割技术实现高致密的并行》和1995年的《多标量处理器》）。其中进程间推测技术及其变种仍是当前计算机体系结构领域非常活跃的研究方向之一。1997年，索易教授在其另一篇名为《数据相关性的动态推测与同步》的ISCA论文中提出对相关内存进行推测的方法，该技术已被用于Alpha处理器的设计，许多其他处理器也正在考虑使用它。同时发表的还有一篇名为《动态的指令重用》的论文，其中提出的指令重用概念已成为另一个热门的研究领域。

索易教授与工业界有着频繁的联系。多年来，他不断与各界体系结构专家交流研究成果，在众多国际知名的微处理器公司的设计组发表演讲，其中包括DEC，HaL，惠普，IBM，英特尔，MIPS，摩托罗拉，SGI与Sun Microsystems。

索易教授负责编辑了《国际计算机体系结构研讨会之25年论文选集》，该书已由美国计算机协会（ACM）出版发行。此外，他还和马克·希尔（Mark Hill），诺曼·焦地（Norm Jouppi）合作编辑了由Morgan Kaufmann出版发行的《计算机系统结构读物》一书。

迄今为止，索易教授共指导了13个博士生，其中许多在一流科研高校供职，包括伊里诺伊大学、马里兰大学、密西根大学、宾夕法尼亚大学、普渡大学、多伦多大学等。他们中有六位曾经获得过美国国家科学基金会（NSF）的杰出成就奖，一位曾获得了斯隆研究奖金（Sloan）。目前，索易教授所带领的研究小组仍在为下一代微处理器的创新发明进行着孜孜不倦的研究，其中包括对推测型多线程的模型研究、近似编程、值传递的预测、芯片多处理等。

由于其“在高频指令输出处理器和指令级并行研究中的开创性贡献”，索易教授获得了1999年度美国计算机协会计算机体系结构兴趣组（ACM SIGARCH）的莫里斯·威尔克斯奖（Maurice Wilkes）。1997年他还获得了威斯康辛大学“维纳斯（Vilas）”奖以及2000年的WARF，Kellett Mid-Career教授研究奖。索易教授同时还是美国计算机协会（ACM）和电气电子工程师学会（IEEE）的会士。

Gurindar (Guri) Sohi received a Ph.D in Electrical and Computer Engineering from the University of Illinois, and has been a faculty member at the University of Wisconsin-Madison since 1985. He is currently a Professor in, and the Chair of, the Computer Sciences department.

Sohi's research has been in the design of high-performance computer systems. He has co-authored several papers and patents that have influenced both researchers and commercial microprocessors. His paper "Instruction Issue Logic for High-Performance, Interruptible Pipelined Processors" (in ISCA 1987) articulated a model for a dynamically-scheduled processor supporting precise exceptions, a model that was widely adopted by several microprocessor manufacturers. (This paper, and the journal version in IEEE Trans. on Computers, March 1990, have been referenced by over 120 U.S. patents. His paper "High Bandwidth Data Memory Systems for Superscalar Processors" (in ASPLOS 1991) argued for non-blocking (or lockup-free) caches, and was instrumental in influencing high-end microprocessors to switch from blocking to non-blocking caches. In the early 1990s he proposed the concept of multiscalar processors and thread-level speculation in his papers "The Expandable Split Window Paradigm for Exploiting Fine-Grain Parallelism" (in ISCA 1992) and "Multiscalar Processors" (in ISCA 1995). Thread-level speculation and its variants are currently one of the most active areas of research in computer architecture. His paper "Dynamic Speculation and Synchronization of Data Dependences" (in ISCA 1997) introduced the idea of memory dependence prediction, an idea that was used in the Alpha processor designs and is being considered by others. His paper "Dynamic Instruction Reuse" (in ISCA 1997) proposed the concept of instruction reuse, another area of active research.

Sohi has interacted heavily with industry. Over the years he has discussed his research with architects and given talks in design groups at most of the leading microprocessor manufacturers, including Digital Equipment, HaL, Hewlett-Packard, IBM, Intel, MIPS, Motorola, Silicon Graphics, and Sun Microsystems.

He edited "25 Years of the International Symposium on Computer Architecture - Selected Papers" published by ACM, and recently co-edited (with Mark Hill and Norm Jouppi) "Readings in Computer Architecture" published by Morgan Kaufmann Publishers.

Sohi has graduated 13 Ph.D students, many of whom currently hold academic positions at leading research universities (Illinois, Maryland, Michigan, Pennsylvania, Purdue, and Toronto). They include six winners of NSF CAREER awards and a winner of a Sloan Research Fellowship. He continues to lead a research group investigating different models for speculative multithreading, approximate programs, value communication prediction, chip multiprocessing, and other innovations for future microprocessors.

He received the 1999 ACM SIGARCH Maurice Wilkes award "for seminal contributions in the areas of high issue rate processors and instruction level parallelism". At the University of Wisconsin he was selected as a Vilas Associate in 1997 and won the WARF Kellett Mid-Career Faculty Researcher award in 2000. He is a Fellow of the ACM and a Fellow of the IEEE.



**Dr. Valerie Elaine Taylor, Texas A&M University**  
*Professor of Computer Science, Chair of Department of Computer Science*



## 维勒莉·依莲·泰勒 博士

得克萨斯A&M大学

泰勒教授分别于1985和1986年在普渡大学获得电子和计算机工程学士和硕士学位，并于1991年在加州大学伯克利分校获得电子工程和计算机科学博士学位。1991至2002年间，泰勒教授任职于西北大学电子和计算机工程系。2003年1月，泰勒教授加入得克萨斯A&M大学，担任德怀特·工程学院计算机科学系主任。目前她还是Royce E. Wisenbaker Professorship II讲座教授。她的主要研究方向是计算机体系结构和高性能计算，特别是分布式系统的网状分割，并行和分布式应用的性能研究等。

泰勒教授已经发表了80多篇学术论文。由于其突出的研究和领导才能，泰勒博士获得过许多奖励，其中包括：2002年美国电气电子工程师学会（IEEE）授予的Harriet B. Rigas奖章，用于奖励为工程学科教育作出过杰出贡献的女性；2002年加州大学伯克利分校优秀青年工科校友奖；2002年为奖励促进计算领域多样化的Nico Habermann奖；以及2005年为奖励学术、科普和多样化计算的Tapia突出成就奖。泰勒博士是美国计算机协会（ACM）会员，IEEE计算机科学分会资深会员。

Valerie E. Taylor earned her B.S. in Electrical and Computer Engineering and M.S. in Computer Engineering from Purdue University in 1985 and 1986, respectively, and a Ph.D. in Electrical Engineering and Computer Science from the University of California, Berkeley, in 1991. From 1991-2002, Dr. Taylor was a member of the faculty in the Electrical and Computer Engineering Department at Northwestern University. Dr. Taylor joined the faculty of Texas A&M University as Head of the Dwight Look College of Engineering's Department of Computer Science in January of 2003, and is, also, currently a holder of the Royce E. Wisenbaker Professorship II. Her research interests are in the areas of computer architecture and high performance computing, with particular emphasis on mesh partitioning for distributed systems and the performance of parallel and distributed applications. She has authored or co-authored over 80 papers in these areas. Dr. Taylor has received numerous awards for distinguished research and leadership, including the 2002 IEEE Harriet B. Rigas Award for woman with significant contributions in engineering education, the 2002 Outstanding Young Engineering Alumni from the University of California at Berkeley, the 2002 Nico Habermann Award for increasing the diversity in computing, and the 2005 Tapia Achievement Award for Scientific Scholarship, Civic Science, and Diversifying Computing. Dr. Taylor is a member of ACM and Senior Member of IEEE-CS.



**Dr. Bryant W. York, Portland State University**  
*Professor of Computer Science*

布赖恩特·约克 博士

波特兰州立大学

计算机科学教授

约克博士曾获美国布兰迪斯大学数学学士学位、麻省理工学院管理学硕士学位，以及马萨诸塞大学阿默斯特分校计算机科学硕士和博士学位。在工业界，他曾就职于加州硅谷的IBM实验室和数字设备公司（DEC）人工智能技术中心。在学术界，他应聘于美国波特兰州立大学计算机科学系担任教授；曾任美国西北大学计算机学院科研主管和副教授（1991-2001），以及波士顿大学副教授（1986-1990）。在他被借调到美国国家科学基金会（NSF）担任项目官员期间（1990年到1991年），他同时在国家标准与技术研究院（NIST）计算与应用数学中心担任客座学者，继续从事并行计算方向的研究工作。

约克教授的科研著作涉及到计算机科学的好几个相关领域，包括计算机视觉、专家系统、软件工程、残疾人计算机辅助、并行计算、检晶仪计算、计算物理，以及神经网络。高级科学计算中的并行算法是他最主要的研究方向。他的大部分课题都专注于研究并行机上的代数与组合计算。长期以来，约克教授的研究得到了美国有关国家部委、基金会和公司企业的大力支持，包括NSF、国家航空航天局（NASA）、国防高级研究计划局（DARPA）、空军科学研究所(AFOSR)，和数字设备公司等。约克教授还在数家公司担任技术顾问，包括数字设备公司、通用动力公司、应用逻辑系统公司、达纳法伯癌症研究所、特斯阿特综合技术公司和石华科学有限公司等。

1992年到1998年，约克教授受聘于NSF计算机信息科学与工程司顾问委员会。1991年到1994年，他是NSF社会行为与经济科学司专家顾问委员。约克教授活跃于各种专业学会活动，是数家专业学会的成员，包括美国计算机协会（ACM）、美国电气电子工程师协会计算机科学分会（IEEE-CS）、美国工业与应用数学协会（SIAM）、美国人工智能协会（AAAI），以及美国科学促进会（AAAS）。他相继担任ACM教育委员会委员（1991年-1996年）和公共政策委员会委员（1992年到1998年）。1994年，他成为该协会少数族裔委员会主席，并于次年5月发起了第一届由NSF资助的，以促进少数群体参与计算科学研究为目的的研讨会。约克教授还曾是1997年硅谷召开的超级计算大会教育程序委员会共同主席。1998年，由于他为计算科学领域内少数族裔发展所做出的突出贡献，他被授予了A. Nico Habermann奖。2001年，他又成为了首位Richard A. Tapia学术研究杰出成就奖的获得者。1991年和1997年，他两次荣获计算机信息科学与工程协会（ADMI）颁发的少数族裔贡献奖。

约克教授已被当选为“计算多样化联盟（CDC）”的下任主席（2006）。该联盟由美国计算机协会（ACM）、计算研究协会（CRA），以及美国电气电子工程师协会计算机科学分会（IEEE-CS）共同发起成立。他同时还当选为下任美国科学促进会信息、计算与通讯分部主席（2006）。他



曾两度被任命为CRA董事会成员（2002年2月到2003年，2005年6月到2006年），最近又连任了下一个三年任期（2006年-2009年）。2002年5月至今，他一直担任美国科学基金会计算机信息科学与工程司顾问委员。2001年，约克教授被评为全美黑人50大杰出科技人才。2006年，《美国黑人工程师与信息技术》杂志又将他评为全美黑人100大杰出科技人才。

Dr. York's educational background includes the A.B. in mathematics from Brandeis University, the M.S. in management from MIT, and the M.S. and Ph.D. in computer science from the University of Massachusetts - Amherst. He has held industrial research positions at the IBM Research Labs in San Jose, CA and at Digital Equipment Corporation's Artificial Intelligence Technology Center in Hudson, Massachusetts. He is currently professor in the Computer Science Department of Portland State University; formerly associate professor and research director for the College of Computer Science at Northeastern University (1991 - 2001); and formerly associate professor of computer science at Boston University (1986 - 1990). While on-leave as a program officer at NSF (1990-1991) he was also a guest researcher at the Center for Computing and Applied Mathematics at the National Institute of Standards and Technology, where he continued his research in parallel computation.

Dr. York has research publications in several areas of computers science, including computer vision, expert systems, software engineering, computer assistance for persons with disabilities, parallel computation, crystallographic computations, computational physics, and neural networks. Dr. York's primary research interest is in the development of parallel algorithms for advanced scientific computations. Most of this work relates to the development of algebraic and combinatorial computations on parallel machines. NSF, NASA, DARPA, AFOSR and Digital Equipment Corporation have supported his research over the years. In addition, Dr. York has consulted for several corporations including Digital Equipment Corporation, General Dynamics, Applied Logic Systems, Dana Farber Cancer Institute, Tesseract Technologies Inc., and Onyx Sciences Corp.

Dr. York was (1992 - 1998) a member of the Advisory Committee for the Computer Information Science and Engineering Directorate of the National Science Foundation. He was a member of the Advisory Panel for the Ethics, Values, and Society program within the Social Behavioral and Economic Sciences directorate of the National Science Foundation from 1991 through 1994. He is a member of several professional organizations including ACM, IEEE-CS, SIAM, AAAI, and AAAS. He was also a member of the ACM Education Board (1991 - 1996) and a member of the ACM U. S. Public Policy Committee (1992 - 1998). He was the 1994 chair of the committee on minorities of the ACM and he organized the first NSF-sponsored workshop on increasing participation of minorities in the computing disciplines (May 1995). Dr. York was co-chair of the Education Program of the SC97 (formerly Supercomputing 97) Conference held in San Jose, CA in November 1997. In 1998 He won the A. Nico Habermann Award for service to underrepresented minorities in computing and in 2001 he won the first Richard A. Tapia Achievement Award for Scientific Scholarship, Civic Science and Diversifying Science. Dr. York has won the ADMI award for service to minority institutions twice (1991, 1997). He is chair-elect (2006) of the Coalition to Diversify Computing (CDC), jointly funded by the Association for Computing Machinery (ACM), the Computing Research Association (CRA) and the Institute for Electrical and Electronic Engineers' Computer Society (IEEE-CS), as well as chair-elect (2006) of the Section on Information, Computing and Communications of AAAS. He has been twice appointed to the Board of Directors of the Computing Research Association (Feb 2002-2003, June 2005-2006) and recently elected to a three-year term (2006 - 2009). He was re-appointed to the advisory committee of the National Science Foundation's Computer and Information Sciences Directorate (May 2002 - present). In 2001 Dr. York was selected as one of the 50 most important Blacks in technology and in 2006 he was selected as one of the 100 most important Blacks in technology by the editors of US Black Engineer and Information Technology magazine.



**Dr. Xiaodong Zhang, Ohio State University**

*Professor of Computer Science, Chair of Department of Computer Science and Engineering*

**张晓东 博士**

俄亥俄州立大学

计算机科学教授，计算机科学与工程系主任

张晓东教授是俄亥俄州立大学的 Robert M. Critchfield 讲座教授，并担任计算机科学与工程系主任。1997年到2005年间，他在威廉玛丽学院（College of William and Mary）任教授、讲座教授及计算机科学系主任。

自1992年以来，在张晓东教授组建的高性能计算机及软件实验室里，他指导了四十多名研究生、博士生和访问学者。张晓东教授在高性能和分布式系统有着广泛的研究兴趣和一系列课题成果。他主持研究的部分成果已经或正在被应用到商业和开放系统软件中，直接影响着人们的日常计算操作。比如，该实验室研究的存储地址空间的转换方法已被使用在Sun Ultra Space商业处理器上和Sun的双核处理器上；Linux操作系统也正式采用了他主持研制的几个存储管理新技术。

在2001到2004年间，张晓东教授在美国国家基金会（NSF）担任高性能计算与系统分部主任。他目前是《美国电气电子工程师学会并行和分布式系统期刊（IEEE Transactions on PDS）》的副主编，《美国电气电子工程师学会计算机期刊（IEEE Transactions on Computers）》、《美国电气电子工程师学会Micro 双月刊》和《并行和分布式计算学报（Journal of Parallel and Distributed Computing）》的编委。

多年在美国旅居和工作的张晓东教授每年都频繁往返于大洋两岸从事科技交流与合作。他在中国国家自然科学基金会资助的龙星讲座计划委员会与中科院计算所的闵应骅教授共同担任主任。龙星计划委员会每年组织一批在美国学术界学有所成的中国教授在中国各地大学系统讲授多门研究生课程。他还担任《中国计算机学报英文版》副主编并受聘为中国科学院海外评审专家。张晓东教授于1982年在北京工业大学获电子工程学士学位，1989年在美国科罗拉多大学波德分校获计算机博士学位。

Xiaodong Zhang is the Robert M. Critchfield Professor in Engineering, and Chairman of the Department of Computer Science and Engineering at the Ohio State University. From 1997 through 2005, he served as professor, guest professor and chair of the Computer Science Department at the College of William and Mary.

Since 1992, he has established and directed the High Performance Computing and Software Laboratory where he has supervised over 40 graduate students (both MS and Ph.D), postdocs, and visiting scholars. His research interests cover a wide spectrum in the areas of high performance and distributed systems. Several technical innovations and research results from his team have been adopted or being developed in commercial products and open source systems with direct impact to our daily computing operations, including the permutation memory interleaving technique first in the Sun Microsystems' UltraSPARC IIIi processor and then in the Sun's dual-core Gemini Processor, the token thrashing protection mechanism and the Clock-Pro page replacement algorithm for memory management in the Linux Kernel.

Xiaodong Zhang was the Program Director of Advanced Computational Research at the National Science Foundation, 2001-2004. He is the associate Editor-in-Chief of IEEE Transactions on Parallel and Distributed Systems, and is also serving on the Editorial Boards of IEEE Transactions on Computers, IEEE Micro, and Journal of Parallel and Distributed Computing. He is an organizer and a lecturer of the Dragon Star Lecture Program offering advanced research classes of computer science in many Chinese universities for thousands of graduate students every year. Xiaodong Zhang is an associate-editor-in-chief of the Journal of Computer Science and Technology (in English) (ZhongGuo JiSuanJi XueBao Yingwen Ban), and Overseas Assessor of the Chinese Academy of Sciences (ZhongGuo KexueYuan Haiwai Pingshen Zhuan Jia).

Xiaodong Zhang received his Ph.D. in Computer Science from the University of Colorado at Boulder in 1989, and his B.S. in Electrical Engineering from Beijing Polytechnic University in 1982.



### **Dr. Wei Zhao, Texas A&M University, National Science Foundation**

*Professor of Computer Science  
Senior Associate Vice President for Research of Texas A&M University  
Director of NSF Computer and Network Systems Division*

**赵伟 博士**

*得克萨斯A&M大学  
计算机科学教授, 资深协理副校长  
美国国家科学基金会分部主任*

赵伟博士现任美国国家科学基金会计算机与网络系统分部主任。他同时兼任美国得克萨斯A&M大学计算机科学教授, 该校资深协理副校长, 主管科研工作。赵伟于1977年在中国陕西师范大学物理系完成大学本科教育, 并分别于1983和1986年在美国马萨诸塞大学阿默斯特分校获得计算机与信息科学的硕士和博士学位。多年来, 赵伟博士先后执教于陕西师范大学、阿默斯特大学、澳大利亚阿德莱德大学和得克萨斯A&M大学。

作为美国电气电子工程师协会 (IEEE) 的会士, 赵伟教授在分布式计算、实时操作系统、计算网络和信息与网络安全等研究领域做出了突出的贡献。他所领导的科研团队获得了多种荣誉与奖励, 其中包括IEEE分布式计算系统国际会议颁发的最佳论文奖、IEEE美国国家空间与电子会议颁发的最佳论文奖和美国国防高级研究计划局(DARPA)颁发的技术转让奖。他所指导的研究生在美国计算机协会 (ACM) 国际科研竞赛中名列第二。赵伟教授还是两项美国专利的发明人。他已有二百五十多篇论文在各种期刊、会议和书籍中发表。赵伟博士负责组建了"得克萨斯A&M大学信息安全中心"并担任其第一任中心主任。该中心被美国国家安全局评为"优秀学术中心"。

在广泛的高等教育管理与管理领域内, 赵伟教授有着丰富的经历。在担任得克萨斯A&M大学计算机科学系主任期间 (1997-2001), 该系的科研经费番了两番, 该系本科教育在全美教育排名调查当中跃升为第十七。2001年至今, 赵伟教授先后担任得克萨斯A&M大学协理副校长和资深协理副校长, 主管该校多个重要科研部门, 包括科研合同与经费办公室、科研纪检办公室、国土安全综合中心、以及"美国爱国者法案"执行委员会以及电讯与信息技术研究所。

赵伟教授还积极参与并组织各种专业活动, 在多个科技期刊担任编委。他现任IEEE实时系统技术委员会主席, 并担任过十多个国际学术会议的主席和总主席, 包括IEEE实时技术及应用大会、IEEE实时系统大会、以及IEEE分布式计算系统国际会议。

20世纪80年代以来, 在成千上万来自中国的学者当中, 像赵伟教授一样在美国综合性大学从事科研管理, 并在美国联邦政府担任高级官员的寥寥可数。特别值得一提的是, 赵伟教授还积极组织和推动中美两国间的科研与教育交流活动, 兼任多项公职。他是中美龙星计划委员会奠基首位主任、上海交通大学电子信息学院海外顾问委员会主任和中国高等教育出版社海外顾问委员会主任 (计算机科学领域)。他同时还担任陕西师范大学海外顾问、《中国科学通报》执行副主编、以及中国多所大学的客座及名誉教授。2005年, 他被中国旅美科技协会授予终身成就奖。

Wei Zhao is a Senior Associate Vice President for Research and a Professor of Computer Science at Texas A&M University. Effective January 2005, he is the Director for the Division of Computer and Network Systems in the National Science Foundation. He completed his undergraduate program in physics at Shaanxi Normal University, Xi'an, China, in 1977. He received his M.Sc. and Ph.D. degrees in Computer and Information Sciences at the University of Massachusetts at Amherst in 1983 and 1986, respectively. During his career, he has been a faculty member at Amherst College, the University of Adelaide, and Texas A&M University.

As an IEEE Fellow, Wei Zhao has made significant contributions in distributed computing, real-time systems, computer networks, and cyber space security. His research group has been recognized by receiving various awards and prizes, including the outstanding paper award from the IEEE International Conference on Distributed Computing Systems, the best paper award from the IEEE National Aerospace and Electronics Conference, an award on technology transfer from the Defense Advanced Research Program Agency, and the 2nd prize in the international ACM student research contest. Dr. Zhao is an inventor for two U.S. patents and has published over 250 papers in journals, conferences, and book chapters. He is the founding director of the Texas A&M Center of Information Security and Assurance, which has been recognized as the Center of Academic Excellence in Information Assurance Education by the National Security Agency.

Wei Zhao has had extensive administration experience in higher education and research management. At Texas A&M University, he served as the head of the

Department of Computer Science in Texas A&M University between 1997 and 2001. During this period of time, the funding for sponsored research quadrupled and an undergraduate program was ranked the 17th in a national survey. Wei Zhao has successively served as the Associate Vice President for Research and Senior Associate Vice President for Research since 2001. In this capacity, he supervises research-related units including Offices of Sponsored Research and Compliance, the Integrated Center of Homeland Security, Task Force on the USA PATRIOT Act, and the Institute for Telecommunication and Information Technologies.

Wei Zhao has also been active in professional services. He has served on editorial board of technical journals, including the IEEE Transactions on Computers and the IEEE Transactions on Parallel and Distributed Systems. He is the chair for the IEEE Technical Committee of Real-Time Systems. He has chaired more than ten international conferences including the IEEE Real-Time Technology and Applications Symposia, the IEEE Real-Time Systems Symposia, and the IEEE International Conference on Distributed Computing Systems.

Since the 1980's, hundreds of thousands of Chinese students have come to United States to work and study. Among them, Wei Zhao is one of the few who have served as a senior research administrator in a large comprehensive university and a senior executive officer in federal government. Nevertheless, Dr. Zhao has actively engaged in various activities for education and research exchange with the People's Republic of China. He was the founding chair of US-China Dragon Star Committee, Overseas Advisory Committee for Shanghai Jiao Tong University Electronics and Information Technology College, and Overseas Advisory Committee for the Higher Education Press (in the field of Computer Science). He has served as Overseas Advisor for Shaanxi Normal University, Vice Executive Editor for Chinese Science Bulletin, and as guest and honorary professors for several universities. In 2005, he was awarded the life achievement award by the Chinese Association of Science and Technology (USA).



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