Annual Report of the ACM Awards Committee July 1, 2020 - June 30, 2021

List of Award Committee Members and Terms of Office

	Term		
		Start	End
Co-Chairs			
John	White	7/1/2016	6/30/2022
Roy	Levin	7/1/2019	6/30/2022
Awards Sub-Co	ommittee Members		
Gregory	Abowd	9/27/2020	6/30/2024
Anastasia	Ailamaki	7/1/2019	6/30/2023
Noga	Alon	7/24/2020	6/30/2024
Victor	Bahl	3/9/2020	12/31/2023
David	Basin	1/1/2019	12/31/2023
Stefano	Basagni	5/10/2021	12/3/2024
Jake	Baskin	1/1/2019	12/31/2022
Michel	Beaudoin-Lafon	7/1/2018	6/30/2022
George	Biros	1/1/2017	12/31/2021
Steve	Bourne	7/1/2018	6/30/2022
Eric	Brewer	3/10/2018	6/30/2024
Rod	Brooks	7/1/2018	6/30/2023
Edouard	Bugnion	7/1/2018	6/30/2022
Doug	Burger	7/1/2017	6/30/2021
Donna	Cappo	7/1/2018	6/30/2022
Michael	Carey	7/1/2016	6/30/2021
Kamalika	Chaudhuri	8/31/2020	6/30/2023
Elizabeth	Churchill	7/20/2021	6/30/2024
Michael	Caspersen	7/1/2017	6/30/2021
Edmond	Chow	1/1/2020	12/31/2023
Albert	Cohen	1/1/2019	12/31/2022
Lorrie	Cranor	8/1/2020	6/30/2024
Bronis	de Supinski	1/1/2016	12/31/2020
Ewa	Deelman	1/1/2020	12/31/2023
David	DeWitt	7/1/2018	6/30/2022
Josep	Diaz	7/1/2017	6/30/2021
Tom	Dietterich	7/1/2016	6/30/2020
Jack	Dongarra	1/1/2017	12/31/2020
Susan	Dumais	7/1/2018	6/30/2022
Sandhya	Dwarkadas	1/1/2017	12/31/2020
Matt	Dwyer	1/1/2019	12/31/2023

Lieven	Eeckhout	1/1/2017	12/31/2020
Alexei	Efros	7/1/2017	6/30/2021
Geraldine	Fitzpatrick	1/1/2018	12/31/2022
Camille	Fournier	7/1/2019	6/30/2023
Armando	Fox	7/1/2018	6/30/2022
Geoffrey	Fox	1/1/2018	12/31/2023
Ben	Fried	7/1/2017	6/30/2021
Fabrizio	Gagliardi	7/1/2020	6/30/2024
Judith	Gal-Ezer	7/1/2019	6/30/2023
Wen	Gao	1/1/2016	12/31/2021
Christina	Gardner-McCune	1/1/2020	12/31/2023
Michael	Gerndt	2/9/2021	12/31/2023
Carlo	Ghezzi	1/1/2016	12/31/2020
Silvia	Giordano	1/1/2017	12/31/2021
Carole	Goble	7/1/2019	6/30/2023
Shafi	Goldwasser	7/1/2017	6/30/2022
Carla	Gomes	7/1/2018	6/30/2022
Rajesh	Gupta	1/1/2017	12/31/2022
Laura	Haas	1/1/2015	12/31/2020
Kim	Hazelwood	1/1/2019	12/31/2022
David	Heckerman	7/1/2016	6/30/2021
Katrin	Heitmann	1/1/2017	12/31/2021
John	Hennessy	3/10/2018	6/30/2022
Julia	Hirschberg	7/1/2018	6/30/2022
Harry	Hochheiser	7/1/2019	6/30/2023
Jeff	Hollingsworth	1/1/2018	12/31/2021
Eric	Horvitz	7/1/2018	6/30/2022
Ayanna	Howard	7/22/2020	6/30/2024
Piotr	Indyk	7/1/2018	6/30/2021
Bruce	Jacob	1/1/2017	12/31/2020
Pankaj	Jalote	7/1/2017	6/30/2021
Natalie Enright	Jerger	4/2/2021	12/31/2023
Karrie	Karahalios	7/1/2018	6/30/2022
Karen	Karavanic	1/1/2017	12/31/2020
Dina	Katabi	7/1/2018	6/30/2022
Randy	Katz	1/1/2015	12/31/2020
Alan	Kay	3/10/2018	6/30/2022
David	Kaeli	4/2/2021	12/31/2023
Valerie	King	7/1/2019	6/30/2023
Lorraine	Kisselburgh	7/1/2019	6/30/2023
Jon	Kleinberg	7/1/2018	6/30/2023
Tamara	Kolda	1/1/2020	12/31/2023

Joe	Konstan	1/1/2015	12/31/2020
Vipin	Kumar	8/27/2020	6/30/2024
Jesus	Labarta	1/1/2017	12/31/2020
Ignacio	Laguna	1/1/2020	12/31/2023
Butler	Lampson	3/10/2018	6/30/2024
Jim	Larus	1/1/2015	12/31/2021
Lillian	Lee	7/1/2019	6/30/2023
Kal	Li	7/1/2018	6/30/2022
Peh	Li Shiuan	1/1/2019	12/31/2022
Dahlia	Malhki	8/8/2020	6/30/2026
Rao	Mannepalli	1/1/2016	12/31/2020
Fred	Martin	1/1/2018	12/31/2021
Sheila	McIlraith	7/1/2018	6/30/2022
Nenad	Medvidovic	7/1/2018	6/30/2022
Gail	Murphy	7/1/2018	6/30/2022
Robin	Murphy	7/1/2018	6/30/2022
Jennifer	Neville	7/1/2018	6/30/2021
George	Neville-Neil	7/1/2017	6/30/2021
Andreas	Nowatzyk	8/8/2020	6/30/2026
David	Padua	1/1/2019	12/31/2022
Mark	Parsons	1/1/2017	12/31/2021
Shwetak	Patel	8/10/2020	6/30/2024
David	Patterson	7/1/2018	6/30/2023
Radia	Perlman	8/1/2021	6/30/2024
Adrian	Perrig	3/13/2020	13/31/2023
Ron	Perrott	7/1/2017	6/30/2021
Timothy	Pinkston	7/1/2020	6/30/2024
Jane	Prey	7/22/2020	6/30/2024
Lucian	Popa	1/1/2017	12/31/2021
Tal	Rabin	7/1/2018	6/30/2022
Daniel	Reed	1/1/2018	12/31/2021
Jennifer	Rexford	8/10/2020	6/30/2024
Yves	Robert	1/1/2017	12/31/2020
Susan	Rodger	8/6/2020	6/30/2024
Susan	Rodger	1/1/2019	12/31/2021
David	Rosenblum	1/1/2016	12/31/2020
Dan	Rubenstein	1/17/2021	6/30/2023
Daniela	Rus	1/1/2018	12/31/2023
Bobby	Schnabel	1/1/2021	12/31/2023
Martin	Schulz	7/21/2019	6/30/2023
Srinivasan	Seshan	8/1/2021	6/30/2024
Bart	Selman	1/1/2017	12/31/2022

Margo	Selzter	8/17/2020	6/30/2025
Ravi	Sethi	7/1/2017	6/30/2021
Andre	Seznec	1/1/2018	12/31/2021
Stuart	Shapiro	7/1/2018	6/30/2022
Len	Shustek	8/1/2020	6/30/2024
Ben	Shneiderman	7/1/2018	6/30/2022
Joseph	Sifakis	7/1/2017	6/30/2022
Alex	Smola	7/1/2018	6/30/2022
Olga	Sorkine-Hornung	7/1/2017	6/30/2022
Per	Stenstrom	1/1/2018	12/31/2021
Dan	Suciu	7/1/2018	6/30/2021
Val	Tannen	7/1/2018	6/30/2021
Kenjiro	Taura	1/1/2017	12/31/2021
John	Taylor	1/1/2020	12/31/2023
Rajeev	Thakur	1/1/2019	12/31/2023
Mikkel	Thorup	1/1/2016	12/31/2021
Chris	Umans	7/1/2018	6/30/2021
Jan	Vahrenhold	1/1/2017	12/31/2020
Greg	Valiant	7/1/2019	6/30/2022
Moshe	Vardi	7/1/2018	6/30/2022
Cristina	Videira Lopes	1/1/2016	12/31/2020
Nicki	Washington	8/1/2020	6/30/2024
John	West	1/1/2016	12/31/2020
Jeannette	Wing	7/1/2019	6/30/2024
Alex	Wolf	1/1/2016	12/31/2021
Michael	Wooldridge	7/1/2017	6/30/2021
Dongmei	Zhang	4/2/2021	12/31/2023

Purpose of the Committee

The Awards Committee is responsible for the conduct of the current awards, prizes, fellowships, and other honors bestowed by ACM as an organization. These responsibilities include providing recommendations for appointments to award subcommittees (ACM membership is required, and approval is by the ACM Awards Committee Co-Chairs) soliciting nominees, selecting winners from among the nominees, arranging for the formal conferring of the awards, and exploring possibilities for funding awards with outside organizations.

The Committee is further responsible for defining and updating the awards structure of ACM and its units by recommending to Council, when appropriate, the establishment of new programs for the recognition of merit, or the modification or discontinuance of existing ones, with the goal of maintaining a balance among the awards recognizing different kinds of meritorious activities.

All ACM awards must be approved by the ACM Awards Committee. Further approval by ACM Council is required before any proper name may be attached to any such award or prize. This authority may not be delegated. Subunit-wide awards, excluding Named Awards, generally do not require ACM Council approval. The Policies and Guide for Establishing an ACM award is available at: <u>https://awards.acm.org/guides</u>

The Committee will provide advice to subunits of ACM regarding any award programs conducted by them. Subunits engaging in award activities should consult with the Awards Committee concerning the nature and balance among the programs of ACM and its subunits.

The Committee will maintain contact, and as appropriate, exchange information with other professional or technical organizations concerning their awards programs.

Committee Organization

The Awards Committee is a standing committee of Council, reporting through the President. The ACM Awards Committee consists of the Co-Chairs of the Awards Committee, the current chairs of the individual ACM award selection committees, and the ACM SIG Chairs Liaison with the Awards Committee.

Awards Committee Meeting

The Awards Committee Co-Chairs, Roy Levin and John R. White, were unable to hold an in-person Awards Committee meeting this year due to the COVID-19 pandemic. The Award Committee Meeting was held virtually on June 30, 2021.

The ACM Awards Banquet

The annual ACM Awards Banquet, typically held in June in San Francisco, California, was cancelled due to the COVID-19 pandemic.

2020 Award Recipients

A.M. Turing Award

2020 Chair – Olga Sorkine-Hornung

ACM's most prestigious technical award is accompanied by a prize of \$1,000,000. It is given to an individual selected for contributions of a technical nature made to the computing community. The contributions should be of lasting and major technical importance to the computer field. Financial support of the Turing Award is provided by Google, Inc.

2020 Recipient: Alfred Aho, Columbia University Jeffrey Ullman, Stanford University

For fundamental algorithms and theory underlying programming language implementation and for synthesizing these results and those of others in their highly influential books, which educated generations of computer scientists.

ACM Prize in Computing:

2020 Chair – Dina Katabi

Formerly known as the ACM - Infosys Foundation Award in the Computing Sciences, the ACM Prize was created in August 2007 and recognizes personal contributions by young scientists and system developers to a contemporary innovation that, through its depth, fundamental impact and broad implications, exemplifies the greatest achievements in the discipline. The award carries a prize of \$250,000. Financial support for the award is provided by an endowment from the Infosys Foundation.

<u>2020 Recipient:</u> Scott Aaronson, University of Texas at Austin For groundbreaking contributions to quantum computing.

ACM Charles P. "Chuck" Thacker Breakthrough in Computing Award:

2020 Chair – John Hennessy

The ACM Breakthrough Award celebrates Chuck Thacker's pioneering contributions in computing and his long-term inspirational mentorship of generations of computer scientists. The award recognizes individuals or groups with the same out-of-the-box thinking and "can-do" approach to solving the unsolved that Thacker exhibited. The award is accompanied by a prize of \$100,000. Financial support for this biennial award is provided by Microsoft.

2020 Recipient: Michael Franz, University of California, Irvine

For the development of just-in-time compilation techniques that enabled fast and feature-rich web services on the internet.

<u>ACM Athena Lecturer Award:</u>

2021-2022 Chair – Gail Murphy

The Athena Lecturer Award celebrates women researchers who have made fundamental contributions to Computer Science. Each year ACM honors a preeminent woman computer scientist as the Athena Lecturer. The recipient gives an invited talk at a major ACM conference of her choice. A video of the

talk is made available on the ACM website. The award carries a cash prize of \$25,000. Financial support for the Athena Lecturer Award is provided by Two Sigma.

2021-2022 Recipient: Ayanna Howard, The Ohio State University

For fundamental contributions to the development of accessible human-robotic systems and artificial intelligence along with forging new paths to broaden participation in computing through entrepreneurial and mentoring efforts.

ACM Distinguished Service Award

2020 Chair – Kai Li

Awarded on the basis of value and degree of service to the computing community. The contributions should not be limited to service to the Association but should include activities in other computer organizations and should emphasize contributions to the computing community at large.

<u>2020 Recipient:</u> Jennifer Tours Chayes, Microsoft Research and the University of California, Berkeley

For her impactful leadership, mentorship and dedication to diversity in the course of distinguished career of computer science research, teaching, and institution building.

Outstanding Contribution to ACM Award

2020 Chair – Steve Bourne

This award is given to individuals who are selected on the value and degree of service to ACM. 2020 Recipient: Chris L. Hankin, Imperial College London

For fundamental contributions to ACM Europe and for bringing a European perspective to critically important committees and activities of the ACM.

ACM Software System Award

2020 Chair-George Neville-Neil

Awarded to an institution or individual(s) recognized for developing a software system that has had a lasting influence, reflected in contributions to concepts, in commercial acceptance, or both. The Software System Award carries a prize of \$35,000 which is provided by IBM.

2020 Recipients: Margo Seltzer, University of British Columbia

Michael Olson, Cloudera (Retired)

Keith Bostic, MongoDB

For Berkeley DB, which was an early exemplar of the NoSQL movement and pioneered the "duallicense" approach to software licensing.

ACM Grace Murray Hopper Award

2020 Chair – Ron Perrott

Awarded to the outstanding young computer professional of the year, selected on the basis of a single recent major technical or service contribution and includes a prize of \$35,000. Financial support of

the award is provided by Microsoft. The candidate must have been 35 years or age or less at the time the qualifying contribution was made.

2020 Recipient: Shyamanth Gollakota, University of Washington

For contributions to the use of wireless signals in creating novel applications, including battery-free communications, health monitoring, gesture recognition, and bio-based wireless sensing.

ACM Karl V. Karlstrom Outstanding Educator Award

2020 Chair - Michael Caspersen

Awarded annually to an outstanding educator who: is appointed to a recognized educational baccalaureate institution; is recognized for advancing new teaching methodologies, or effecting new curriculum development or expansion in computer science and engineering; or who is making a significant contribution to the educational mission of the ACM. Those who have been teaching for ten years or less will be given special consideration. A prize of \$10,000 is supplied by Pearson Education.

2020 Recipient: Andrew McGettrick, University of Strathclyde

For his scholarship and tireless volunteer work and contributions, which have fundamentally improved rigorous computer science as a field of professional practice and as an academic pursuit.

ACM Paris Kanellakis Theory and Practice Award

2020 Chair – Tal Rabin

The Kanellakis award honors specific theoretical accomplishments that have had a significant and demonstrable effect on the practice of computing. This award is accompanied by a prize of \$10,000 and is endowed by contributions from the Kanellakis family, and financial support which has been provided by ACM's SIGACT, SIGDA, SIGMOD, SIGPLAN, the SIG Project Fund, and individual contributions.

2020 Recipients:Yossi Azar, Tel Aviv University
Andrei Broder, Google Research
Anna Karlin, University of Washington
Michael Mitzenmacher, Harvard University
Eli Upfal, Brown University

For the discovery and analysis of balanced allocations, known as the power of two choices, and their extensive applications to practice.

ACM Doctoral Dissertation Award

2020 Chair – Val Tannen

Presented annually to the author(s) of the best doctoral dissertation(s) in computer science and engineering and is accompanied by a prize of \$20,000, and \$10,000 for the Honorable Mention winner.

2020 Recipient: Chuchu Fan, Massachusetts Institute of Technology

For her dissertation, "Formal Methods for Safe Autonomy: Data-Driven Verification, Synthesis and Applications," nominated by the University of Illinois Urbana-Champaign.

2020 Honorable Mentions:

Ralf Jung, Max Planck Institute for Software Systems, Massachusetts Institute of Technology

For his dissertation, "Understanding and Evolving the Rust Programming Language" nominated by Saarland University.

Henry Corrigan-Gibbs, Massachusetts Institute of Technology

For his dissertation "Protecting Privacy by Splitting Trust," nominated by Stanford University.

ACM/IEEE CS Eckert-Mauchly Award

2021 Chair – Per Stenstrom

Administered jointly by ACM and IEEE Computer Society. The award of \$5,000 is given for contributions to computer and digital systems architecture where the field of computer architecture is considered at present to encompass the combined hardware-software design and analysis of computing and digital systems. The award was presented at the 46th annual ISCA (International Symposium on Computer Architecture) June, in Portland, OR.

2021 Recipient: Margaret Martonosi, Princeton University

For contributions to the design, modeling, and verification of power-efficient computer architecture.

ACM- IEEE CS Ken Kennedy Award

2020 Chair – Daniel Reed

Awarded annually and recognizes substantial contributions to programmability and productivity in computing and substantial community service or mentoring contributions. The award includes a \$5,000 honorarium.

2020 Recipient: Vivek Sarkar, Georgia Institute of Technology

For foundational technical contributions to the area of programmability and productivity in parallel computing, as well as leadership contributions to professional service, mentoring, and teaching.

ACM IEEE CS George Michael Memorial HPC Fellowship

2020 Chair – Jack Dongarra

Endowed in memory of George Michael, one of the founding fathers of the SC Conference series, the ACM IEEE-CS George Michael Memorial Fellowships honor exceptional PhD students throughout the world whose research focus areas are in high performance computing, networking, storage, and large-scale data analysis. ACM, the IEEE Computer Society, and the SC Conference support this award The Fellowship includes a \$5,000 honorarium, plus travel and registration to receive the award at the annual SC conference.

2019 Recipients:

Kazem Cheshmi, University of Toronto

For developing Sympiler for automatically generating efficient parallel code for sparse scientific applications on supercomputers.

Madhurima Vardhan, Duke University

For developing a memory light massively parallel computational fluid dynamic algorithm using routine clinical data to enable high fidelity simulations at ultrahigh resolutions.

Keren Zhou, Rice University

For developing performance Tools for GPU-accelerated Applications.

ACM/AAAI Allen Newell Award

2020 Chair - Michael Wooldridge

The Allen Newell Award is presented to an individual selected for career contributions that have breadth within computer science and other disciplines. This endowed award is supported by the Association for the Advancement of Artificial Intelligence, and by individual contributions.

2020 Recipients:

Hector Levesque, University of Toronto

For fundamental contributions to knowledge representation and reasoning, and their broader influence within theoretical computer science, databases, robotics, and the study of Boolean satisfiability.

Moshe Vardi, Rice University

For contributions to the development of logic as a unifying foundational framework and a tool for modeling computational systems.

<u>ACM Eugene L. Lawler Award for Humanitarian Contributions within Computer Science and</u> <u>Informatics</u>

2020 Chair - Carla Gomes, Cornell University

The Lawler Award recognizes an individual or a group who have made a significant contribution through the use of computing technology. The amount of this biennial award is \$5,000, and it is financially supported by individual contributions.

<u>2020 Recipient:</u> Richard Anderson, University of Washington For contributions bridging the fields of computer science, education, and global health.

The SIAM/ACM Prize in Computational Science and Engineering

2021 Chair – David Keyes

This biennial, endowed award recognizes an individual(s) for outstanding research contributions to the field of computational science and engineering. The contribution(s) for which the award is made must be publicly available and may belong to any aspect of computational science in its broadest sense. The award includes a cash prize of \$5,000. Financial sponsorship is provided by SIAM (Society for Industrial and Applied Mathematics).

2021 Recipient: George Karniadakis, Brown University

For advancing spectral elements, reduced-order modeling, uncertainty quantification, dissipative particle dynamics, fractional PDEs, and scientific machine learning, while pushing applications to extreme computational scales and mentoring many leaders.

ACM Gordon Bell Prize

2020 Chair – Bronis de Supinski

The Gordon Bell Prizes are awarded each year to recognize outstanding achievement in highperformance computing. The purpose of the awards is to track the progress over time of parallel computing, with particular emphasis on rewarding innovation in applying high-performance computing to applications in science. Prizes are awarded for peak performance, special achievements in scalability and time-to-solution on important science and engineering problems, and low price/performance. The awards are presented during the SuperComputing Conference and include a total of \$10,000 in prize money. The award has been endowed by Gordon Bell, a pioneer in highperformance and parallel computing.

2020 Recipients:

Pushing the limit of molecular dynamics with *ab initio* accuracy to 100 million atoms with machine learning

Authors: Weile Jia, University of California, Berkeley; Han Wang, Institute of Applied Physics and Computational Mathematics (Beijing, China); Mohan Chen, Peking University; Denghui Lu, Peking University; Lin Lin, University of California, Berkeley and Lawrence Berkeley National Laboratory; Roberto Car, Princeton University; Weinan E, Princeton University; and Linfeng Zhang, Princeton University.

<u>ACM The Gordon Bell Special Prize for High Performance Computing-Based COVID-19</u> <u>Research</u>

The Gordon Bell Special Prize for High Performance Computing-Based COVID-19 Research was presented for the first time in 2020 to recognize outstanding research achievement towards the understanding of the COVID-19 pandemic through the use of high-performance computing (HPC). The purpose of the award is to recognize the innovative parallel computing contributions towards the solution of the global crisis. The award will be presented for 2020 and 2021 only. Financial support of this \$10,000 award is provided by Gordon Bell, a pioneer in high-performance and parallel computing.

2020 Recipients:

AI-Driven Multiscale Simulations Illuminate Mechanisms of SARS-CoV-2 Spike Dynamics

Authors: Rommie Amaro, University of California, San Diego; Arvind Ramanathan, Argonne National Laboratory; Tom Gibbs, NVIDIA; John Stone, University of Illinois at Urbana-Champaign; Jim Phillips, University of Illinois at Urbana-Champaign; Lillian Chong, University of Pittsburgh; Lorenzo Casalino, University of California, San Diego; Abigail Dommer, University of California, San Diego; David Hardy, University of Illinois at Urbana-Champaign; Julio Maia, University of Illinois at Urbana-Champaign; Thorsten Kurth, NVIDIA; and Shantenu Jha, Rutgers University.

ACM Presidential Award

The ACM Presidential Awards are given to leaders whose actions and achievements serve as paragons for our field. Recipients have demonstrated their exceptional abilities to advance computing and enhance its impact for the benefit of society through generosity, creativity and dedication to their respective missions.

No 2020 Recipient was selected.

ACM Advanced Member Grades:

As of June 4th, 2020, the membership requirement for all Advanced Member Grades of a minimum of 5 consecutive years of membership was changed.

The new membership requirement is a minimum of 5 years of membership, not necessarily consecutive, within the last 10 years.

ACM Fellows

2020 Chair – Joseph Konstan

The ACM Fellows Program was established by Council in 1993 to recognize and honor outstanding ACM members for their achievements in computer science and information technology and for their significant contributions to the mission of the ACM. The ACM Fellows serve as distinguished

colleagues to whom the ACM and its members look for guidance and leadership as the world of information technology evolves.

Ninety-five new Fellows were inducted in 2020, bringing the number of ACM Fellows to 1,310:

Daniel J. Abadi, University of Maryland James Allan, University of Massachusetts Amherst Srinivas Aluru, Georgia Institute of Technology Andrea C. Arpaci-Dusseau, University of Wisconsin Remzi Arpaci-Dusseau, University of Wisconsin Suman Banerjee, University of Wisconsin-Madison Manuel Blum, Carnegie Mellon University Lionel Briand, University of Ottawa David Brooks, Harvard University Ran Canetti, Boston University John Canny, University of California at Berkeley Anantha Chandrakasan, Massachusetts Institute of Technology Yao-Wen Chang, National Taiwan University Moses Charikar, Stanford University Yiran Chen, Duke University Graham R. Cormode, University of Warwick Patrick Cousot, Courant Institute of Mathematical Sciences, New York University Mathieu Desbrun, California Institute of Technology Whitfield Diffie, Affiliation Unknown Bonnie J. Dorr, IHMC Nicholas Duffield, Texas A&M Alan Edelman, Massachusetts Institute of Technology **Thomas Eiter,** Vienna University of Technology Cormac Flanagan, University of California, Santa Cruz Jodi Forlizzi, Carnegie Mellon University **Dieter Fox,** University of Washington Sanjay Ghemawat, Google Antonio Gonzalez, Universitat Politecnica de Catalunva Andrew D. Gordon, Microsoft Research Steven Gribble, Google Susanne E. Hambrusch, Purdue University Martin Hellman, Stanford University Nicholas Higham, University of Manchester C. Anthony ("Tony") R. Hoare, University of Oxford Holger H. Hoos, Leiden University Ihab F. Ilyas, University of Waterloo Lizy Kurian John, University of Texas, Austin Joost-Pieter Katoen, RWTH Aachen Nam Sung Kim, University of Illinois Sven Koenig, University of Southern California

David Kotz, Dartmouth College Arvind Krishnamurthy, University of Washington Ravi Kumar, Google Research Brian Levine, University of Massachusetts Amherst Kevin Leyton-Brown, University of British Columbia **Xuelong Li,** Northwestern Polytechnic University **Steven H. Low,** California Institute of Technology Chenvang Lu, Washington University at St. Louis Samuel Madden, Massachusetts Institute of Technology Scott Mahlke, University of Michigan, Ann Arbor David Maltz, Microsoft Azure Volker Markl, Technische Universität Berlin Maja Mataric, University of Southern California Filippo Menczer, Indiana University Jose Meseguer, University of Illinois at Urbana-Champaign Meredith Ringel Morris, Microsoft Research Nachiappan Nagappan, Microsoft Research **Radhika Nagpal**, Harvard University Moni Naor, Weizmann Institute of Science Chandrasekhar Narayanaswami, IBM TJ Watson Research Center Sam H. Noh, UNIST Prakash Panangaden, McGill University Sethuraman Panchanathan, Arizona State University Manish Parashar, Rutgers University Keshab K. Parhi, University of Minnesota Haesun Park, Georgia Institute of Technology Gordon Plotkin, University of Edinburgh Michael O. Rabin, Harvard University Kui Ren, Zhejiang University Paul Resnick, University of Michigan Mary Beth Rosson, Pennsylvania State University Steven Salzberg, Johns Hopkins University Sanjit Arunkumar Seshia, University of California, Berkeley Adi Shamir, Weizmann Institute of Science Heng Tao Shen, University of Electronic Science and Technology of China Amit Sheth, University of South Carolina Adam Smith, Boston University Olga Sorkine-Hornung, ETH Zurich **Rick L. Stevens,** Argonne National Laboratory Peter Stone, University of Texas at Austin Yufei Tao, Chinese University of Hong Kong Leandros Tassiulas, Yale University Kenneth Lane Thompson, Google Andrew Tomkins, Google Olga Troyanskaya, Princeton University and Simons Foundation 13

Matthew A. Turk, Tokyo Institute of Technology & UCSB Wil van der Aalst, RWTH Aachen University Toby Walsh, University of New South Wales Wei Wang, University of California, Los Angeles Laurie Ann Williams, North Carolina State University Cathy H. Wu, University of Delaware Shuicheng Yan, YITU Technology Wang Yi, Uppsala University Kun Zhou, Zhejiang University Michael J. Zyda, University of Southern California

ACM Distinguished Member

2020 Chair – David Rosenbloom

This advanced member grade was approved by Council in October 2005. This program recognizes those ACM members with at least 15 years of professional experience that have made significant accomplishments or achieved a significant impact on the computing field. Candidates must have been ACM Professional members for a minimum of 5 years within the last 10-year period. In FY'09, the categories under Distinguished Member were changed to Distinguished Educator, Distinguished Engineer, and Distinguished Scientist.

There were 64 new Distinguished Members in 2020, of which there were 4 Distinguished Educators, 4 Distinguished Engineers and 56 Distinguished Scientists which brings the total number of Distinguished Members to 728.

ACM Senior Member

As of January 2020, Senior Member nominations are reviewed by ACM Staff.

This advanced member grade was approved by Council in October 2005. This program recognizes those ACM members with at least 10 years of professional experience that have demonstrated performance and accomplishment that sets them apart. Candidates must have been ACM Professional members for a minimum of 5 years within the last 10-year period. There were 299 new Senior Members in FY'21, bringing the total to 2,932 as of June 2021.

Intel International Science and Engineering Fair (ISEF)

2020 Chair – Fred Martin

ISEF has been administered since 1950 by the Society for Science & the Public (formerly Science Service). Over 1,500 ninth through twelfth grade student winners from over 40 nations are among those who have earned the right to compete by winning top prize at a local, regional, state or national science fair.

ACM's first place award is \$4,000, second place is \$3,000, and third place is \$1,500, the honorable award winners (a maximum of 3) each receive a prize of \$500. All receive complimentary Student subscriptions memberships (Portal Package) for the duration of their undergraduate studies. The 7²ⁿd ISEF was held virtually

Recognition of Service Certificates

The Recognition of Service Certificate Program is the responsibility of Headquarters Staff to issue certificates to those eligible volunteers who have completed service to ACM of at least one year in an elective or appointed position and who have received endorsement of their superiors in the ACM volunteer organization. No Recognitions of Service Certificates were issued in FY'21.

Appendix

ACM A.M Turing Award

rent rang renard			
Michael Carey	UC Irvine	mjcarey@ics.uci.edu	
David Heckerman	Amazon	heckerma@microsoft.com	
Joseph Sifakis	Verimag Lab IMAG	Joseph.sifakis@uni-grenoble-alpes.fr	
Shafi Goldwasser	UC Berkeley; Simons Institute	Shafi@csail.mit.edu	
Olga Sorkine-Hornung	ETH	sorkine@inf.ethz.ch	
David Patterson	Google; UC Berkeley	davidpatterson@google.com	
Jon Kleinberg	Cornell University	Kleinber@cs.cornell.edu	
Rod Brooks	MIT	brooks@csail.mit.edu	
Jeannette Wing	Columbia University	wing@columbia.edu	
Margo Seltzer	University of British Columbia	mseltzer@cs.ubc.ca	
ACM Prize in Computing			
Alexei Efros	UC Berkeley	efros@eecs.berkeley.edu	
Pankaj Jalote	IIIT Delhi	jalote@iiitd.ac.in	
Eric Horvitz	Microsoft Research	horvitz@microsoft.com	
Dina Katabi	MIT	dina@csail.mit.edu	
Moshe Vardi	Rice University	vardi@cs.rice.edu	
Shewtak Patel	University of Washington	shwetak@cs.washington.edu	
Jennifer Rexford	Princeton University	jrex@cs.princeton.edu	
ACM Athena Lecturer Award			
Gail Murphy	University of British Columbia	murphy@cs.ubc.ca	
Susan Dumais	Microsoft	sdumais@microsoft.com	
Nicki Washington	Duke University	nicki@cs.duke.edu	
Srinivasan Seshan	Carnegie Mellon University	srini@cs.cmu.edu	
ACM Charles P. "Chuck" Thacker Breakthrough in Computing Award			
Alan Kay	Viewpointe Research	alan.nemo@yahoo.com	

- ł
- ŀ ιy John Hennessy Butler Lampson Eric Brewer Dahlia Malkhi Andreas Nowatzyk

Stanford University; Alphabet Microsoft Google Facebook/Calibra VMWare

hennessy@stanford.edu

ebrewer@google.com

agn@acm.org

BLampson@microsoft.com

dahliamalkhi@gmail.com

ACM Distinguished Service Award

Doug Burger	Microsoft Research	dburger@microsoft.com
Kai Li	Princeton university	li@cs.princeton.edu
Radia Perlman		radiaperlman@gmail.com
Len Shustek	Computer History Museum	len@shustek.com
Anastasia Ailamaki	EPFL	anastasia.ailamaki@epfl.ch

Doctoral Dissertation Award

Edouard Bugnion	EPFL	edouard.bugnion@epfl.ch	
Greg Valiant	Stanford University	gregory.valiant@gmail.com	
Jennifer Neville	Purdue University	neville@cs.purdue.edu	
Val Tannen	University of Pennsylvania	val@cis.upenn.edu	
Chris Umans	CalTech	umans@cms.caltech.edu	
Piotr Indyk	MIT	indyk@mit.edu	
Dan Suciu	University of Washington	suciu@cs.washington.edu	
Martin Schulz	Technical University of Munich	martin.w.j.schulz@tum.de	
Kamalika Chaudhuri	UC San Diego	kamalika@cs.ucsd.edu	
Dan Rubenstein	Columbia University	danr@cs.columbia.edu	
ACM Grace Murray Hopper Award			
Ron Perrott	Oxford e-Research Centre	r.perrott@gmail.com	

Alex Smola	Amazon Web Services	alex@smola.org
Carole Goble	University of Manchester	carole.goble@manchester.ac.uk
Timothy Pinkston	University of Southern California	tpink@usc.edu
Lorrie Cranor	Carnegie Mellon University	lorrie@cs.cmu.edu

Paris Kanellakis Theory and Practice Award

Josep Diaz	Barcelona Supercomputing Centre
Tal Rabin	IBM
Valerie King	University of Victoria
Noga Alon	Princeton University

Aarhus

UC Berkeley

University of Israel Duke University

Karl V. Karlstrom Outstanding Educator Award

Michael Caspersen
Armando Fox
Judith Gal-Ezer
Susan Rodger

Eugene L. Lawler Award

Carla Gomes Robin Murphy Karrie Karahalios Vipin Kumar Gregory Abowd

Cornell University Texas A&M University University of Illinois Urbana Champaign University of Minnesota Northeastern University

ACM/AAAI Allan Newell Award

- Michael Wooldridge Julia Hirschberg Sheila McIlraith Lillian Lee Aynna Howard
- University of Oxford Columbia U Toronto Cornell The Ohio State University

diaz@cs.upc.edu talr@us.ibm.com valking77@gmail.com nalon@math.princeton.edu

- mec@cs.au.dk fox@cs.berkeley.edu galezer@openu.ac.il rodger@cs.duke.edu
- gomes@cs.cornell.edu robin.r.murphy@tamu.edu kkarahal@illinois.edu kumar001@umn.edu g.abowd@northeastern.edu
- michael.wooldridge@cs.ox.ac.uk julia@cs.columbia.edu sheila@cs.toronto.edu llee@cs.cornell.edu ah260@gatech.edu

ACM Policy Award

Ben Shneiderman
Michel Beaudoin-Lafon
Stuart Shapiro
Harry Hochheiser
Lorraine Kisselburgh

University of Maryland Université Paris-Sud MITRE University of Pittsburgh Purdue University

Neville-Neil Consulting

University of Wisconsin

University of Southern California

Outstanding Contribution to ACM Award

Steve Bourne		srb@acm.org
Donna Cappo	ACM HQ	cappo@hq.acm.org
Jane Prey		janeprey@gmail.com
Fabrizio Gagliardi	Barcelona SC Center	fgagliar@bsccns.onmicrosoft.com
Elizabeth Churchill	Google	churchill.at.acm@gmail.com

ACM Software System Award

Ben Fried George Neville-Neil Nenad Medvidovic David DeWitt **Camille Fournier**

ACM/IEEE CS Eckert-Mauchly Award

Sandhya Dwarkadas	University of Rochester
Andre Seznec	Inria
Kim Hazelwood	Facebook
Lieven Eeckhout	Ghent University
Per Stenstrom	Chalmers University of Technology
Peh Li Shiuan	National University of Singapore

Google

Two Sigma

ACM/IEEE CS George Michael Memorial HPC Fellowship

Yves Robert	Ecole Normale Supérieure de Lyon	yve
Karen Karavanic	Portland State University	kar
Ignacio Laguna	Lawrence Livermore National Laboratory	ilag
Tamara Kolda	Sandia National Laboratory	tgk
Jack Dongarra	University of Tennessee	doı
Bruce Jacob	University of Maryland	BL
Susan Rodger	Duke University	rod
Ewa Deelman	University of Southern California ISI	dee

ben@cs.umd.edu mbl@lri.fr s shapiro@acm.org harryh@pitt.edu lorraine@purdue.edu

bf@google.com gnn@neville-neil.com neno@usc.edu david.dewitt@outlook.com skamille@gmail.com

sandhya@cs.rochester.edu andre.seznec@inria.fr kimhazelwood@fb.com Lieven.Eeckhout@ugent.be pers@chalmers.se peh@nus.edu.sg

es.robert@ens-lyon.fr ravan@pdx.edu gunap@gmail.com colda@sandia.gov ngarra@icl.utk.edu J@umd.edu lger@cs.duke.edu elman@isi.edu

Gordon Bell Prize

Arndt Bode	Technical University of Munich; Leibniz SC Centre	bode@lrz.de
Bronis de Supinski	Lawrence Livermore National Laboratory	bronis@llnl.gov
Katrin Heitmann	Argonne National Laboratory	heitmann@anl.gov
George Biros	UT Austin	biros@ices.utexas.edu
Mark Parsons	EPCC at The University of Edinburgh	m.parsons@epcc.ed.ac.uk
Kenjiro Taura	University of Tokyo	tau@logos.t.u-tokyo.ac.jp
John Taylor	CSIRO; Data61	John.Taylor@data61.csiro.au
Edmond Chow	Georgia Tech	echow@cc.gatech.edu
International Science and Engineering Fair		

International Science and Engineering Fair

Jan Vahrenhold	Technical University of Munich	jan.vahrenhold@uni-muenster.de
Fred Martin	University of Massachusetts, Lowell	fred.martin@csteachers.org
Jake Baskin	CSTA	jake.baskin@csteachers.org
Christina Gardner-McCune	University of Florida	gmccune@ufl.edu

ACM-IEEE CS Ken Kennedy Award

Antonia Bertolino	Italian National Research Council	antonia.bertolino@isti.cnr.it
Jeff Hollingsworth	University of Maryland	hollings@cs.umd.edu
Albert Cohen	Google	albertcohen@google.com
Jesus Labarta	Barcelona Supercomputing Centre	jesus.labarta@bsc.es
Daniel Reed	University of Utah	dan.reed@utah.edu
David Padua	University of Illinois Urbana-Champaign	padua@illinois.edu

SIAM/ACM Award in Computational Science and Engineering

Linda Petzold	UC Santa Barbara
David Keyes	Columbia &King Abdullah University
Geoffrey Fox	Indiana University
Bobby Schnabel	University of Colorado

ACM Fellows

Randy Katz Joe Konstan Jim Larus Alex Wolf Wen Gao Mikkel Thorup Bart Selman Rajesh Gupta Daniela Rus Victor Bahl Adrian Perrig

ACM Distinguished Members

Cristina Videira Lopes Jeanne Ferrante John West Carlo Ghezzi David Rosenblum Silvia Giordano Lucian Popa Geraldine Fitzpatrick Matt Dwyer David Basin Rajeev Thakur

UC Berkeley University of Minnesota EPFL UC Santa Cruz Peking University University of Copenhagen Cornell University UC San Diego MIT Microsoft Research ETH

UC Irvine UC San Diego Texas Advanced Computing Center Politecnico de Milano George Mason University University of Applied Sciences IBM Almaden Technical University of Vienna University of Virginia ETH Argonne National Laboratory

randy@eecs.berkeley.edu konstan@cs.umn.edu james.larus@epfl.ch alw@acm.org wgao@pku.edu.cn mikkel2thorup@gmail.com selman@cs.cornell.edu rgupta@ucsd.edu rus@csail.mit.edu bahl@microsoft.com adrian.perrig@inf.ethz.ch

lopes@uci.edu jferrante@ucsd.edu john@tacc.utexas.edu carlo.ghezzi@polimi.it dsr@gmu.edu silvia.giordano@supsi.ch lpopa@us.ibm.com geraldine.fitzpatrick@tuwien.ac.at matthewbdwyer@virginia.edu basin@inf.ethz.ch thakur@anl.gov

ACM Awards Committee Co-Chairs: John R. White white@acm.org Roy Levin roy@levin.net **ACM Awards Committee Liaison:** Jade Morris **SGB** Liaison:

Shan Lu

University of Chicago

jade.morris@acm.org

shanlu@cs.uchicago.edu