



#### **MEDIA ADVISORY**

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# ACM CELEBRATES 50 YEARS OF THE TURING AWARD AND THE VISIONARIES WHO HAVE RECEIVED IT

Twenty ACM Turing Laureates to Participate in Two-Day Conference on Development and Future of Computing

**NEW YORK, NY, January 31, 2017** – Through the years, the ACM A.M. Turing Award has become the most prestigious technical award in the computing field. In celebration of five decades of the award, the Association for Computing Machinery (ACM) today announced program details for a two-day conference that will explore how computing has evolved and where the field is headed.

**WHO:** ACM, the Association for Computing Machinery <a href="www.acm.org">www.acm.org</a>, is the premier global community of computing professionals and students with nearly 100,000 members in more than 170 countries interacting with more than 2 million computing professionals worldwide.

**WHAT:** Celebration of 50 Years of the ACM Turing Award conference featuring ACM Turing laureates, ACM award recipients and other ACM experts in moderated panel discussions on the most pressing issues in computing today.

**WHEN and WHERE:** June 23-24, 2017 at the Westin St. Francis in San Francisco, and via live video streaming at www.acm.org/turing-award-50

MORE: For more information, www.acm.org/turing-award-50

**MEDIA REGISTRATION:** Contact Jim Ormond at ormond@hq.acm.org

**PROGRAM OVERVIEW: (Panel Discussions)** 

## Advances in Deep Neural Networks

How are deep neural networks changing our world and our jobs, and what breakthroughs may we imagine going forward?

**Moderator**: Judea Pearl (2011 Turing laureate)

Panelists: Michael Jordan (UC Berkeley), Fei-Fei Li (Stanford), and Ilya Sutskever (OpenAI)

# Restoring Personal Privacy without Compromising National Security

Can computing technology promote both personal privacy and national security?

**Moderator**: Joan Feigenbaum (Yale)

Panelists: Whitfield Diffie (2015 Turing laureate), Bryan Ford (EPFL), Nadia Heninger (University of

Pennsylvania), and Paul Syverson (NRL)

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#### Preserving Our Past for the Future

How do we archive our electronic artifacts to ensure we can read data and documents in both the near and distant future?

**Moderator**: Craig Partridge (Raytheon)

**Panelists**: Vint Cerf (2004 Turing laureate), Brewster Kahle (Internet Archive), Natasa Milic-Frayling (University of Nottingham) Mahadev Satyanarayanan (Carnegie Mellon), and Brent Seales (University of Kentucky)

## Moore's Law Is Really Dead: What's Next?

Moore's Law is finally over. What old doors will this seismic shift close and what new doors will it open? **Moderator**: John Hennessy (Stanford)

**Panelists**: Doug Burger (Microsoft), Norm Jouppi (Google), Margaret Martonosi (Princeton), and Chuck Thacker (2009 Turing laureate)

### Challenges in Ethics and Computing

How do we recognize and address ethical issues that arise with advances in technology?

**Moderator**: Deirdre Mulligan (UC Berkeley)

**Panelists**: Jennifer Chayes (Microsoft), Helen Nissenbaum (NYU), Raj Reddy (1994 Turing laureate), and Noel Sharkey (University of Sheffield)

## Quantum Computing: Far Away? Around the Corner? Or Maybe Both at the Same Time?

Quantum computing hardware is maturing swiftly. In this discussion, we'll look at where we are in both theory and practice, where we are headed and what quantum skills the average computer scientist will eventually need.

**Moderator**: Umesh Vazirani (UC Berkeley)

**Panelists**: Dorit Aharonov (Hebrew University), David Cory (University of Waterloo), John Martinis (Google) and Andrew Yao (2000 Turing laureate)

#### Augmented Reality: From Gaming to Cognitive Aids and Beyond

Augmented reality has captivated our imaginations both in fiction and in practice. In this panel, we explore how the sensing and sensory display technologies of augmented reality can empower individuals and communities.

**Moderator**: Blair MacIntyre (Georgia Tech)

**Panelists**: Fred Brooks (1999 Turing laureate), Peter Lee (Microsoft Research), Yvonne Rogers (University College London), and Ivan Sutherland (1988 Turing laureate)

Program Committee members for the 50 Years of the ACM Turing Award Celebration include Craig Partridge (Program Chair), Fahad Dogar (Deputy Program Chair), Karin Breitman, Vint Cerf, Jeff Dean, Joan Feigenbaum, Wendy Hall, Joseph Konstan and David Patterson

# About ACM and the ACM A.M. Turing Award

The ACM A.M. Turing Award, often referred to as the "Nobel Prize of Computing," carries a \$1 million prize with financial support provided by Google, Inc. ACM, the Association for Computing Machinery (www.acm.org), is the world's largest educational and scientific computing society, uniting computing educators, researchers and professionals to inspire dialogue, share resources and address the field's challenges.