<table>
<thead>
<tr>
<th>Year</th>
<th>Recipient</th>
<th>Title and Affiliation</th>
<th>Award Citation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>CYNTHIA DWORK</td>
<td>Gordon McKay Professor of Computer Science, Harvard University, Cambridge, Massachusetts, USA</td>
<td>“For foundational work in privacy, cryptography, and distributed computing, and for leadership in developing differential privacy.”</td>
</tr>
<tr>
<td>2019</td>
<td>DAVID TSE</td>
<td>Professor, Stanford University, Stanford, California, USA</td>
<td>“For seminal contributions to wireless network information theory and wireless network systems.”</td>
</tr>
<tr>
<td>2018</td>
<td>ERDAL ARIKAN</td>
<td>Professor, Department of Electrical Engineering, Bilkent University, Ankara, Turkey</td>
<td>“For contributions to information and communications theory, especially the discovery of polar codes and polarization techniques.”</td>
</tr>
<tr>
<td>2017</td>
<td>SHLOMO SHAMAI</td>
<td>Professor, Technion-Israel Institute of Technology, Haifa, Israel</td>
<td>“For fundamental contributions to information theory and wireless communications.”</td>
</tr>
<tr>
<td>2016</td>
<td>ABBAS EL GAMAL</td>
<td>Professor and Department Chair, Department of Electrical Engineering, Stanford University, Stanford, California, USA</td>
<td>“For contributions to network multi-user information theory and for wide ranging impact on programmable circuit architectures.”</td>
</tr>
<tr>
<td>2014</td>
<td>THOMAS RICHARDSON</td>
<td>Vice President, Engineering, Qualcomm, Bridgewater, New Jersey, USA</td>
<td>“For fundamental contributions to coding theory, iterative information processing, and applications.”</td>
</tr>
<tr>
<td>AND</td>
<td>RÜDIGER URBANKE</td>
<td>Professor, Ecole Polytechnique Federale de Lausanne, Lausanne, Switzerland</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>ROBERT CALDERBANK</td>
<td>Professor, Electrical and Computer Engineering, Duke University, Durham, NC, USA</td>
<td>“For fundamental contributions to coding theory that impacted voice-band modems and wireless communication.”</td>
</tr>
<tr>
<td>2012</td>
<td>MICHAEL G. LUBY</td>
<td></td>
<td>“For the conception, development, and analysis of...”</td>
</tr>
</tbody>
</table>
IEEE RICHARD W. HAMMING MEDAL
RECIPIENTS

Vice President of Technology, QUALCOMM, Inc., Berkeley, CA, USA

AND AMIN SHOKROLLAHI
Professor of Math and Computer Science, EPFL, and Chief Scientist, Digital Fountain, Inc., Lausanne, Switzerland

2011 TOBY BERGER
Irwin and Joan Jacobs Professor Engineering, Emeritus, Cornell University, and Professor of Electrical and Computer Engineering, University of Virginia, Charlottesville, VA, USA

“For contributions to Information Theory, including source coding and its applications.”

2010 WHITFIELD DIFFIE
Vice President, Fellow and Chief Security Officer, Sun Microsystems, Menlo Park, CA, USA

AND MARTIN HELLMAN
Professor Emeritus of Electrical Engineering, Stanford University, Stanford, CA, USA

AND RALPH MERKLE
Senior Research Fellow, Institute for Molecular Manufacturing, Cupertino, CA, USA

“For the invention of public key cryptography and its application to secure communications.”

2009 PETER FRANASZEK
IBM Research, Research, Yorktown Heights, NY, USA

“For pioneering contributions to the theory and practice of constrained channel coding.”

2008 SERGIO VERDU
Prof. of Electrical Engineering, Princeton Univ., Princeton, NJ, USA

“For fundamental contributions to information theory and the development of multiuser detection.”

2007 ABRAHAM LEMPEL
Director of the HP Labs Advanced Studies Program and Director of HP Labs Israel,

“For pioneering work in data compression especially the Lempel-Ziv algorithm.”

2 of 3
IEEE RICHARD W. HAMMING MEDAL
RECIPIENTS

Hewlett-Packard Labs, Haifa, Israel

2006 VLADIMIR I. LEVENSHTEIN
Leading Scientific Researcher, Keldysh Institute for Applied Mathematics, Moscow, Russia
“For contributions to the theory of error-correcting codes and information theory, including the Levenshtein distance.”

2005 NEIL J.A. SLOANE
Technology Leader, AT&T Labs, Florham Park, NJ, USA
“For contributions to coding theory and its applications to communications, computer science, mathematics and statistics.”

2004 JACK K. WOLF
Stephen O. Rice Prof, Dept of E&CE and Endowed Chair, Center for Magnetic Recording Research Univ. of California, San Diego, La Jolla, CA, USA
“For fundamental contributions to the theory and practice of information transmission and storage.”

2003 CLAUDE BERROU
ALAIN GLAVIEUX
Professors, Ecole Nationale Superieure des Telecommunications de Bretagne, Brest, France
“For the invention of turbo codes, which have revolutionized digital communications.”

2002 PETER ELIAS
MIT, Cambridge, MA, USA
“For fundamental and pioneering contributions to information theory and its applications.”

2001 A.G. (SANDY) FRASER
Chief Scientist, AT&T Research Labs, Florham Park, NJ, USA
“For pioneering contributions to the architecture of communication networks through the development of virtual circuit switching technology.”

2000 SOLOMON W. GOLOMB
University of Southern California, Los Angeles, CA, USA
“For fundamental contributions to the theory of shift register sequences and their applications in digital communications.

1999 DAVID A. HUFFMAN
University of California Santa Cruz, CA, USA
“For design procedures of minimum redundancy (Huffman) codes and asynchronous sequential circuits, and contributions to analysis of visual imagery.”

1998 DAVID D. CLARK
MIT, Cambridge, MA, USA
“For leadership and major contributions to the architecture of the Internet as a universal information medium”

1997 THOMAS M. COVER
Stanford University Stanford, CA, USA
“For fundamental contributions to information and communication theory, statistics and pattern recognition.”
IEEE RICHARD W. HAMMING MEDAL
RECIPIENTS

1996  MARK S. PINSKER
       Institute for Information Transmission Problems (IITP)
       Russian Academy of Sciences
       Moscow, Russia
       "For outstanding contributions to information theory, statistical estimation and coding theory."

1995  JACOB ZIV
       Technion-Israel Inst. of Tech.
       Haifa, Israel
       "For contributions to information theory, and the theory and practice of data compression."

1994  GOTTFRIED UNGERBOECK
       IBM Zürich Research Laboratory
       Ruschlikon, Switzerland
       "For the development and application of trellis modulation to digital communications."

1993  JORMA J. RISSANEN
       IBM Corporation
       San Jose, CA, USA
       "For fundamental contributions to information theory, statistical inference, control theory, and the theory of complexity."

1992  LOTFI A. ZADEH
       University of California
       Berkeley, CA, USA
       "For seminal contributions to information science and systems, including the conceptualization of fuzzy sets."

1991  ELWYN R. BERLEKAMP
       AXCOM, Inc.
       Berkeley, CA, USA
       "For profound contributions to the theory and application of error-correcting codes."

1990  DENNIS M. RITCHIE
       AT& T Bell Laboratories
       Murray Hill, NJ, USA
       "For the origination of the UNIX operating system and the C programming language."

       AND  KENNETH L. THOMPSON
       AT& T Bell Laboratories, Murray Hill, NJ, USA

1989  IRVING S. REED
       University of Southern California
       Los Angeles, CA, USA
       "For contributions to multiple error-correcting codes, digital computer design, and automatic detection and processing of signals in noise."

1988  RICHARD W. HAMMING
       U.S. Naval Postgrad. School
       Monterey, CA, USA
       "For exceptional and pioneering contributions to information sciences and systems, and for inspiring generations of researchers in these fields."