<table>
<thead>
<tr>
<th>Year</th>
<th>Name and Title</th>
<th>Institution and Location</th>
<th>Citation</th>
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<tbody>
<tr>
<td>2022</td>
<td>MADHU SUDAN (FIEEE)—Professor, Harvard University, Cambridge, Massachusetts, USA</td>
<td>For fundamental contributions to probabilistically checkable proofs and list decoding of Reed-Solomon codes.</td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td>RAYMOND W. YEUNG (FIEEE)—Choh-Ming Li Professor of Information Engineering, The Chinese University of Hong Kong, Hong Kong, China</td>
<td>For fundamental contributions to information theory and pioneering network coding and its applications.</td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td>CYNTHIA DWORK 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>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>DAVID TSE Professor, Stanford University, Stanford, California, USA</td>
<td>For seminal contributions to wireless network information theory and wireless network systems.</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>ERDAL ARIKAN 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>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>SHLOMO SHAMAI Professor, Technion-Israel Institute of Technology, Haifa, Israel</td>
<td>For fundamental contributions to information theory and wireless communications.</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>ABBAS EL GAMAL 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>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>THOMAS RICHARDSON Vice President, Engineering, Qualcomm, Bridgewater, New Jersey, USA</td>
<td>For fundamental contributions to coding theory, iterative information processing, and applications.</td>
<td></td>
</tr>
<tr>
<td>AND</td>
<td>RÜDIGER URBANKE</td>
<td></td>
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</table>
IEEE RICHARD W. HAMMING MEDAL
RECIPIENTS

Professor, Ecole Polytechnique
Federale de Lausanne,
Lausanne, Switzerland

2013 ROBERT CALDERBANK
Professor, Electrical and
Computer Engineering, Duke
University, Durham, NC, USA

“For fundamental contributions to coding theory that
impacted voice-band modems and wireless
communication.”

2012 MICHAEL G. LUBY
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

“For the conception, development, and analysis of
practical rateless codes.”

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.”
IEEE RICHARD W. HAMMING MEDAL
RECIPIENTS

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, Hewlett-Packard Labs, Haifa, Israel
“For pioneering work in data compression especially the Lempel-Ziv algorithm.”

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
“For design procedures of minimum redundancy (Huffman) codes and asynchronous sequential circuits,
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<th>Name</th>
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<th>Award Description</th>
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<tbody>
<tr>
<td>1998</td>
<td>DAVID D. CLARK</td>
<td>MIT, Cambridge, MA, USA</td>
<td>For leadership and major contributions to the architecture of the Internet as a universal information medium</td>
</tr>
<tr>
<td>1997</td>
<td>THOMAS M. COVER</td>
<td>Stanford University, Stanford, CA, USA</td>
<td>For fundamental contributions to information and communication theory, statistics and pattern recognition.</td>
</tr>
<tr>
<td>1996</td>
<td>MARK S. PINSKER</td>
<td>Institute for Information Transmission Problems (IITP), Russian Academy of Sciences, Moscow, Russia</td>
<td>For outstanding contributions to information theory, statistical estimation and coding theory.</td>
</tr>
<tr>
<td>1995</td>
<td>JACOB ZIV</td>
<td>Technion-Israel Inst. of Tech., Haifa, Israel</td>
<td>For contributions to information theory, and the theory and practice of data compression.</td>
</tr>
<tr>
<td>1994</td>
<td>GOTTFRIED UNGERBOECK</td>
<td>IBM Zürich Research Laboratory, Ruschlikon, Switzerland</td>
<td>For the development and application of trellis modulation to digital communications.</td>
</tr>
<tr>
<td>1993</td>
<td>JORMA J. RISSANEN</td>
<td>IBM Corporation, San Jose, CA, USA</td>
<td>For fundamental contributions to information theory, statistical inference, control theory, and the theory of complexity.</td>
</tr>
<tr>
<td>1992</td>
<td>LOTFI A. ZADEH</td>
<td>University of California, Berkeley, CA, USA</td>
<td>For seminal contributions to information science and systems, including the conceptualization of fuzzy sets.</td>
</tr>
<tr>
<td>1991</td>
<td>ELWYN R. BERLEKAMP</td>
<td>AXCOM, Inc., Berkeley, CA, USA</td>
<td>For profound contributions to the theory and application of error-correcting codes.</td>
</tr>
<tr>
<td>1990</td>
<td>DENNIS M. RITCHIE</td>
<td>AT&amp;T Bell Laboratories, Murray Hill, NJ, USA</td>
<td>For the origination of the UNIX operating system and the C programming language.</td>
</tr>
<tr>
<td></td>
<td>AND KENNETH L. THOMPSON</td>
<td>AT&amp;T Bell Laboratories, Murray Hill, NJ, USA</td>
<td></td>
</tr>
<tr>
<td>1989</td>
<td>IRVING S. REED</td>
<td>University of Southern California, Los Angeles, CA, USA</td>
<td>For contributions to multiple error-correcting codes, digital computer design, and automatic detection and processing of signals in noise.</td>
</tr>
<tr>
<td>1988</td>
<td>RICHARD W. HAMMING</td>
<td>U.S. Naval Postgrad. School</td>
<td>For exceptional and pioneering contributions to information sciences and systems, and for inspiring</td>
</tr>
</tbody>
</table>
IEEE RICHARD W. HAMMING MEDAL
RECIPIENTS

Monterey, CA, USA generations of researchers in these fields."