

**IEEE RICHARD W. HAMMING MEDAL**  
**RECIPIENTS**

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|------|---|--|
| 2010 | WHITFIELD DIFFIE<br>Vice President, Fellow and Chief<br>Security Officer, Sun Microsystems,<br>Menlo Park, CA, USA,<br>AND MARTIN HELLMAN<br>Professor Emeritus of Electrical<br>Engineering, Stanford University,<br>Stanford, CA, USA,<br>AND RALPH MERKLE<br>Senior Research Fellow, Institute for<br>Molecular Manufacturing, Cupertino,<br>CA, USA | "For the invention of public key cryptography and its<br>application to secure communications."                                  |
| 2009 | PETER FRANASZEK<br>IBM Research, Research, Yorktown<br>Heights, NY, USA   | "For pioneering contributions to the theory and practice of<br>constrained channel coding."                                      |
| 2008 | SERGIO VERDU<br>Prof. of Electrical Engineering,<br>Princeton Univ., Princeton, NJ, USA   | "For fundamental contributions to information theory and the<br>development of multiuser detection."                             |
| 2007 | ABRAHAM LEMPEL<br>Director of the HP Labs Advanced<br>Studies Program and Director of HP<br>Labs Israel, Hewlett-Packard Labs,<br>Haifa, Israel   | "For pioneering work in data compression especially the<br>Lempel-Ziv algorithm."  |
| 2006 | VLADIMIR I. LEVENSHTAIN<br>Leading Scientific Researcher,<br>Keldysh Institute for Applied<br>Mathematics, Moscow, Russia   | "For contributions to the theory of error-correcting codes and<br>information theory, including the Levenshtein distance."       |
| 2005 | NEIL J.A. SLOANE<br>Technology Leader, AT&T Labs,<br>Florham Park, NJ, USA  | "For contributions to coding theory and its applications to<br>communications, computer science, mathematics and<br>statistics." |
| 2004 | JACK K. WOLF<br>Stephen O. Rice Prof, Dept of<br>E&CE and Endowed Chair, Center<br>for Magnetic Recording Research<br>Univ. of California, San Diego, La<br>Jolla, CA, USA  | "For fundamental contributions to the theory and practice of<br>information transmission and storage."                           |
| 2003 | CLAUDE BERROU and<br>ALAIN GLAVIEUX<br>Professors, Ecole Nationale<br>Superieure des<br>Telecommunications de Bretagne,<br>Brest, France  | "For the invention of turbo codes, which have revolutionized<br>digital communications."   |
| 2002 | PETER ELIAS<br>MIT, Cambridge, MA, USA  | "For fundamental and pioneering contributions to information<br>theory and its applications."                                    |

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| 2001 | A.G. (SANDY) FRASER<br>Chief Scientist, AT&T Research<br>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<br>University of Southern California,<br>Los Angeles, CA, USA   | "For fundamental contributions to the theory of shift register sequences and their applications in digital communications."                          |
| 1999 | DAVID A. HUFFMAN<br>University of California<br>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<br>MIT, Cambridge, MA, USA   | "For leadership and major contributions to the architecture of the Internet as a universal information medium"                                       |
| 1997 | THOMAS M. COVER<br>Stanford University<br>Stanford, CA, USA   | "For fundamental contributions to information and communication theory, statistics and pattern recognition."   |
| 1996 | MARK S. PINSKER<br>Institute for Information<br>Transmission Problems (IITP)<br>Russian Academy of Sciences<br>Moscow, Russia | "For outstanding contributions to information theory, statistical estimation and coding theory."   |
| 1995 | JACOB ZIV<br>Technion-Israel Inst. of Tech.<br>Haifa, Israel  | "For contributions to information theory, and the theory and practice of data compression."  |
| 1994 | GOTTFRIED UNGERBOECK<br>IBM Zürich Research Laboratory<br>Ruschlikon, Switzerland   | "For the development and application of trellis modulation to digital communications."   |
| 1993 | JORMA J. RISSANEN<br>IBM Corporation<br>San Jose, CA, USA   | "For fundamental contributions to information theory, statistical inference, control theory, and the theory of complexity."                          |
| 1992 | LOTFI A. ZADEH<br>University of California<br>Berkeley, CA, USA   | "For seminal contributions to information science and systems, including the conceptualization of fuzzy sets."                                       |
| 1991 | ELWYN R. BERLEKAMP<br>AXCOM, Inc.<br>Berkeley, CA, USA  | "For profound contributions to the theory and application of error-correcting codes."  |
| 1990 | DENNIS M. RITCHIE and<br>KENNETH L. THOMPSON<br>AT& T Bell Laboratories<br>Murray Hill, NJ, USA                               | "For the origination of the UNIX operating system and the C programming language."   |

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|------|---|---|
| 1989 | IRVING S. REED<br>University of Southern California<br>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<br>U.S. Naval Postgrad. School<br>Monterey, CA, USA      | "For exceptional and pioneering contributions to information sciences and systems, and for inspiring generations of researchers in these fields." |