

IEEE W. R. G. BAKER PRIZE PAPER AWARD
RECIPIENTS

The award was discontinued in February 2016.

2016 NOT AWARDED

2015 THOMAS L. MARZETTA "Non-cooperative Cellular Wireless with Unlimited Numbers of Base Station Antennas," *IEEE Transactions on Wireless Communications*, Vol. 9, Issue 11, pp. 3590–3600, November 2010.

2014 STEPHEN J. WRIGHT "Sparse Reconstruction by Separable Approximation," *IEEE Transactions on Signal Processing*, Vol. 57, Issue 7, July 2009, pp. 2479–2493.
University of Wisconsin, Madison,
Wisconsin, USA

ROBERT NOWAK
University of Wisconsin, Madison,
Wisconsin, USA

MÁRIO A. T. FIGUEIREDO
Instituto de Telecomunicações,
Instituto Superior Técnico,
Torre Norte, Lisboa, Portugal

2013 ERDAL ARIKAN "Channel Polarization: A Method for Constructing Capacity-Achieving Codes for Symmetric Binary-Input Memoryless Channels," *IEEE Transactions on Information Theory*, Vol. 5, Issue 7, July 2009, pp. 3051–3073.
Bilkent University
Ankara, Turkey

2012 GERHARD KRIEGER "TanDEM-X: A Satellite Formation for High-Resolution SAR Interferometry", *IEEE Transactions on Geoscience and Remote Sensing*, Vol. 45, Issue 11, Part 1, November 2007, pp. 3317–3341.
ALBERTO MOREIRA
HAUKE FIEDLER
IRENA HAJNSEK
MARIAN WERNER
MARWAN YOUNIC
MANFRED ZINK

2002 thru 2011 – NOT AWARDED

2001 KESHAB PARHI "Low Energy CSMT Carry Generators and Binary Adders," *IEEE Trans. on Very Large Scale Intergration*, Vol. 7, No. 4, December 1999, pp. 450-462
University of Minnesota
Minneapolis, MN, USA

2000 A. LEE SWINDLEHURST "Maximum Likelihood Methods in Radar Array Signal Processing," *Proceedings of IEEE*, Vol. 86, No. 2, February 1998, pp.421-441.
Brigham Young University
Provo, UT

AND PETRA STOICA
Uppsala University

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Uppsala, Sweden

- 1999 - WAYNE D. GROVER
Telecommunications Research
Laboratory
Edmonton, Alberta, Canada
"Self Organizing Broadband Transport Networks",
Proceedings of the IEEE, Vol. 85, No. 10, October
1997, pp. 1582-1611.
- 1998 - PAUL F. MCMANAMON
TERRY A. DORSCHNER
DAVID L. CORKUM
LARRY J. FRIEDMAN
DOUGLAS S. HOBBS
MICHAEL HOLZ
SERGEY LIBERMAN
HUY Q. NGUYEN
DANIEL P. RESLER
RICHARD C. SHARP
EDWARD A. WATSON
"Optical Phased Array Technology," *Proceedings
of the IEEE*, Vol. 84, No. 2, February 1996, pp.
268-298.
- 1997 - RAJIV RAMASWAMI
AND KUMAR N. SIVARAJAN
IBM/T. J. Watson Research Center
Yorktown Heights, NY, USA
"Routing and Wavelength Assignment in
All-Optical Networks," *IEEE/ACM Transactions on
Networking*, Vol. 3, No. 5, October 1995, pp.
489-500.
- 1996 - WILL E. LELAND
AND WALTER WILLINGER
AND DANIEL V. WILSON
Bellcore, Morristown, NJ, USA
MURAD S. TAQQU
Boston University, Boston, MA, USA
"On the Self-Similar Nature of Ethernet Traffic,"
IEEE/ACM Transactions on Networking, Vol. 2,
No. 1, February 1994, pp. 1-15.
- 1995 - PETROS MARAGOS
Georgia Inst. Of Technology,
Atlanta, GA
AND JAMES F. KAISER
Rutgers University,
Piscataway, NJ, USA
AND THOMAS F. QUATIERI
MIT, Cambridge, MA, USA
"Energy Separation in Signal Modulations with
Application to Speech Analysis," *IEEE
Transactions on Signal Processing*, Vol. 41, No.
10, October 1993, pp. 3024-3051.
- 1994 - MICHAEL M. GREEN
"How to Identify Unstable dc Operating Points,"

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| State University of New York
Stony Brook, NY, USA | <i>IEEE Transactions on Circuits and Systems-I: Fundamental Theory and Applications</i> , Vol. 39, No. 10, October 1992, pp. 820-832. |
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| AND ALAN N. WILLSON, JR.
University of California
Los Angeles, CA | |
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| 1993 - NARASIMHAM VEMPATI | "Enhancements to Givens Rotations for Power System State Estimation," <i>IEEE Transactions on Power Systems</i> , Vol. 6, No. 2, May 1991, pp. 842-849 |
| AND ILYA W. SLUTSKER
Empros Systems International
Minneapolis, MN | |
| AND WILLIAM F. TINNEY
Consultant
Portland, OR, USA | |
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 | |
| 1992 - ALON ORLITSKY
AT&T Bell Laboratories
Murray Hill, NJ, USA | "Worse-Case Interactive Communication I: Two Messages are Almost Optimal," <i>IEEE Transactions on Information Theory</i> , Vol. 36, No. 5, September 1990, pp. 1111-1126 |
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| 1991 - JOHN C. DOYLE
California Institute of Technology
Pasadena, CA, USA | "State-Space Solutions to Standard H ₂ and H _∞ Control Problems," <i>IEEE Transactions on Automatic Control</i> , August 1989 |
| AND KEITH CLOVER
Cambridge University
Cambridge, England | |
| AND BRUCE A. FRANCIS
University of Toronto
Toronto, Ont., Canada | |
| AND PRAMOD P. KHARGONEKAR
University of Michigan
Ann Arbor, MI, USA | |
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| 1990 - ALLEN C. NEWELL
National Institute of Standards and Technology, Boulder, CO, USA | "Error Analysis Technique" for Planar Near-Field Measurements," <i>IEEE Transactions on Antennas and Propagation</i> , June 1988 |
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| 1989 - RANDAL E. BRYANT
Carnegie-Mellon University
Pittsburgh, PA, USA | "Algorithmic Aspects of Symbolic Switch Network Analysis" and "Boolean Analysis of MOS Circuits," <i>IEEE Transactions on Computer Aided Design</i> , |

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July 1987

- 1988 - BENJAMIN KEDEM
University of Maryland
College Park, MD, USA
"Spectral Analysis and Discrimination by Zero-Crossings," *Proceedings of the IEEE*, November 1986
- 1987 - JAMES L. MASSEY
Swiss Federal Institute of Technology
Zurich, Switzerland
"The Collision Channel Without Feedback," *IEEE Transactions on Information Theory*, March 1985
- AND PETER MATHYS
University of Colorado
Boulder, CO, USA
- 1986 - ADI SHAMIR
Weizmann Institute of Science
Rehovet, Israel
"A Polynomial-Time Algorithm for Breaking the Basic Merkle-Hellman Cryptosystem," *IEEE Transactions on Information Theory*, September 1984.
- 1985 - JOHN W. ADAMS
Hughes Aircraft Company
Los Angeles, CA, USA
"A New Approach to FIR Digital Filters with Fewer Multipliers and Reduced Sensitivity," *IEEE Transactions on Circuits and Systems*, May 1983
- AND ALAN N. WILLSON, JR.
University of California,
Los Angeles, CA, USA
- 1984 - YANNIS TSIVIDIS
Columbia University
New York, NY, USA
"Signal Processors with Transfer Function Coefficients Determined by Timing," *IEEE Transactions on Circuits and Systems*, December 1982
- 1983 - RYSZARD MALEWSKI
"Elimination of the Skin Effect Error in Heavy-Current Shunts," *IEEE Transactions on Power Apparatus and Systems*, March 1981
- AND CHINH T. NGUYEN
Hydro Quebec Institute of Research
Varennes, Canada
- AND KURT FESER
Haefely & Co., Ltd., Basel,
Switzerland
- AND NILS HYLTEN-CAVALLIUS
Center Pesquisas Energia Eletrica
Rio De Janeiro, Brazil

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- 1982 - CARL O. BOZLER
AND GARY D. ALLEY
MIT Lincoln Laboratory
Lexington, MA, USA
"Fabrication and Numerical Simulation of the Permeable Base Transistor," *IEEE Transactions on Electron Devices*, June 1980
- 1981 - TIMOTHY C. MAY
INTEL Corporation
Aloha, OR, USA
AND MURRAY H. WOODS
INTEL Corporation
Santa Clara, CA, USA
"Alpha-Particle-Induced Soft Errors in Dynamic Memories," *IEEE Transactions on Electron Devices*, January 1979
- 1980 - DAVID J. ALLSTOT
Texas Instruments Inc.,
Dallas, TX, USA
AND PAUL R. GRAY
University of California,
Berkeley, CA, USA
AND GORDON M. JACOBS
Dolby Laboratories, Inc.,
San Francisco, CA, USA
AND ROBERT W. BRODERSEN
University of California,
Berkeley, CA, USA
"Design Techniques for MOS Switched Capacitor Ladder Filters," *IEEE Transactions on Circuits and Systems*, December 1978
- 1979 - STEPHEN W. DIRECTOR
Carnegie-Mellon University
Pittsburgh, PA, USA
GARY D. HACHTEL
University of Denver,
Denver, CO, USA
"The Simplicial Approximation Approach to Design Centering," *IEEE Transactions on Circuits and Systems*, July 1977
- 1978 - JAMES S. KRESGE
AND EUGENE C. SAKSHAUG
General Electric Company,
Pittsfield, MA, USA
AND STANLEY A. MISKE, JR.
General Electric Co.,
Schenectady, NY, USA
"A New Concept in Station Arrester Design," *IEEE Transactions on Power Apparatus and Systems*, March/April 1977

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- 1977 - MANFRED R. SCHROEDER
Bell Laboratories
Murray Hill, NJ, USA
"Models of Hearing," *Proceedings of the IEEE*,
September 1975
- 1976 - ROBERT W. KEYES
IBM
Hopewell Junction, NY, USA
"Physical Limits in Digital Electronics,"
Proceedings of the IEEE, May 1975
- 1975 - STEWART E. MILLER
AND ENRIQUE A.J. MARCATILI
AND TINGYE LI
Bell Laboratories
Holmdel, NJ, USA
"Research Toward Optical-Fiber Transmission
Systems," *Proceedings of the IEEE*, December
1973
- 1974 - DAVID B. LARGE
Conservation Foundation,
Washington, DC, USA
"Radio Transmission to and from Underground
Coal Mines—Theory and Measurement," *IEEE
Transactions on Communications*, March 1973
- AND LAWRENCE BALL
AND ARNOLD J. FARSTAD
Westinghouse Georesearch
Laboratory, Boulder, CO, USA
- 1973 - LEON O. CHUA
University of California
Berkeley, CA, USA
"Memristor-The Missing Circuit Element," *IEEE
Transactions on Circuit Theory*, September 1971
- 1972 - DIRK J. KUIZENGA
AND ANTHONY E. SIEGMAN
Stanford University
Stanford, CA, USA
"FM and AM Mode Locking of the Homogeneous
Laser-Parts I & II," *IEEE Journal on Quantum
Electronics*, November 1970
- 1971 - ANDREW H. BOBECK
ROBERT F. FISCHER
ANTHONY J. PERNESKI
J. P. REMEIKA
L. G. VAN UITERT
Bell Telephone Labs, Inc.,
Murray Hill, NJ, USA
"Application of Orthoferrites to Domain-Wall
Devices," *IEEE Transactions on Magnetics*,
September 1969
- 1970 - GEORGE J. FRIEDMAN
Northrop Electro-Mechanical Division
Palos Verdes Peninsula, CA, USA
"Constraint Theory-Parts I, II, and III," *IEEE
Transactions on Systems Science & Cybernetics*,
January, April, July, 1969

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AND CORNELIUS T. LEONDES
University of California
Los Angeles, CA, USA

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| 1969 - TOSIRO KOGA
Kyushu University
Fukuoka, Japan | "Synthesis of Finite Passive n-Ports with Prescribed Positive Real Matrices of Several Variables," <i>IEEE Transactions on Circuit Theory</i> , March 1968 |
| 1968 - JONNY ANDERSEN

AND HARRY B. LEE
MIT, Cambridge, MA, USA | "Network Synthesis Using Lossy Reactances," <i>IEEE Transactions on Circuit Theory</i> , September 1966 |
| 1967 - DEAN E. MCCUMBER

AND ALAN G. CHYNOWETH
Bell Telephone Labs, Inc.,
Murray Hill, NJ, USA | "Theory of Negative-Conductance Amplification and of Gunn Instabilities in 'Two-Valley' Semiconductors," <i>IEEE Transactions on Electron Devices</i> , January 1966 |
| 1966 - ROBERT G. GALLAGER
MIT
Cambridge, MA, USA | "A Simple Derivation of the Coding Theorem and Some Applications," <i>IEEE Transactions on Information Theory</i> , January 1965 |
| 1965 - DANTE C. YOULA
Polytechnic Institute of Brooklyn
Farmingdale, NY, USA | "A New Theory of Broad-Band Matching," <i>IEEE Transactions on Circuit Theory</i> , March 1964 |
| 1964 - DONALD L. WHITE
Bell Telephone Laboratories
Murray Hill, NJ, USA | "The Depletion Layer Transducer," <i>IEEE Transactions on Professional Technical Group on Ultrasonics Engineering</i> , July 1962 |