

The IEEE Communications Society Stephen O. Rice Prize in the Field of Communications Theory

Given annually to the best original paper published in any journal financially sponsored or co-sponsored by the Communications Society in the previous 3 calendar years

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Prize

Plaque and honorarium up to \$500 for each author (total awards not to exceed \$1000).

Eligibility

Publication of an original paper, in the category Communications Theory, published in any journal financially sponsored or co-sponsored by the Communications Society in the previous 3 calendar years; author need not be an IEEE member.

Basis for Judging

Quality, originality, utility, timeliness, clarity of presentation.

Nominee Solicitation

Nominations solicited by Transactions Editor-in-Chief from the Editorial Board, guest Editors, and readership (through published notice).

Selection Process

Nominations screened and reduced to a short list by a committee of the Editorial Board and submitted to the Communications Society Awards Committee for final selection.

Presentation

Annually (as soon as possible after recommendation). Award may not be given if a paper of high quality is not uncovered.

(first presented in 1975)

AWARDEES

- 2012** Andrea Conti
Wesley M. Gifford
Moe Z. Win
Marco Chiani
"Optimized Simple Bounds for Diversity Systems,"
IEEE Transactions on Communications, Vol. 57, No. 9, September 2009, pp. 2674-2685.
- 2011** Shi Jin
Matthew R. McKay
Xiqi Gao
Iain B. Collings
"MIMO Multichannel Beamforming: SER and Outage Using New Eigenvalue Distributions of Complex Noncentral Wishart Matrices," *IEEE Transactions on Communications*, Vol. 56, No. 3, pp. 424-434, March 2008
- 2010** Guocong Song
Geoffrey Ye Li
Leonard J. Cimini
"Joint Channel- and Queue-Aware Scheduling for Multiuser Diversity in Wireless OFDMA Networks", *IEEE Transactions on Communications*, Vol. 57, No. 7, pp. 2109-2121, July 2009
- 2009** Angel Lozano
Antonia Tulino
Sergio Verdu
"Optimum Power Allocation for Multiuser OFDM with Arbitrary Signal Constellations", *IEEE Transactions on Communications*, Vol. 56, No. 5, pp. 828–837, May 2008
- 2008** Bongyong Song
Rene L. Cruz
Bhaskar D. Rao
"Network Duality for Multiuser MIMO Beamforming Networks and Applications", *IEEE Transactions on Communications*, Vol. 55, No. 3, pp. 618 – 630, March 2007
- 2007** Ying Yu Tai
Lan Lan
Lingqi Zeng
Shu Lin
Khaled A. S. Abdel-Ghaffar
"Algebraic Construction of Quasi-Cyclic LDPC Codes for the AWGN and Erasure Channels", *IEEE Transactions on Communications*, Vol. 54, No. 10, pp. 1765-1774, October 2006

- 2006** Bertrand M. Hochwald
Christian B. Peel
A. Lee
Swindlehurst
"A Vector-Perturbation Technique for Near-Capacity Multiantenna Multiuser Communication- Part I: Channel Inversion and Regularization", *IEEE Transactions on Communications*, Vol. 53, No.1, pp. 195-202, January 2005
- "A Vector-Perturbation Technique for Near-Capacity Multiantenna Multiuser Communication- Part II: Perturbation"**, *IEEE Transactions on Communications*, Vol. 53, No.3, pp. 537-544, March 2005
- 2005** Stephan ten Brink
Gerhard Kramer
Alexei Ashikhmin
"Design of Low-Density Parity-Check Codes for Modulation and Detection", *IEEE Transactions on Communications*, Vol. 52, No. 4, pp. 670-678, April 2004
- 2004** Andrew Sendonaris
Elza Erkip
Behnaam Aazhang
"User Cooperation Diversity - Part I: System Description" and "User Cooperation Diversity - Part II: Implementation Aspects and Performance Analysis", *IEEE Transactions on Communications*, Vol. 51, No. 11, pp. 1927-1948, November 2003
- 2003**
No Award
- 2002** Casey L. Miller
Desmond P. Taylor
Peter T. Gough
"Estimation of Co-Channel Signals with Linear Complexity", *IEEE Transactions on Communications*, Vol. 29, No. 11, pp. 1997-2005, November, 2001
- 2001** Sirikiat Lek
Ariyavisitakul
"Turbo Space-Time Processing to Improve Wireless Channel Capacity", *IEEE Transactions on Communications*, Vol. 48, No. 8, pp. 1347-1359, Aug. 2000
- 2000** Nick McKeown
Adisak Mekikittikul
Venkat Anantharam
Jean Walrand
"Achieving 100% Throughput in an Input-Queued Switch", *IEEE Transactions on Communications*, Vol. 47, No. 8, August 1999, pp. 1260-1267
- 1999** Theodore S. Rappaport
Greg Durgin
Hao Xu
"Measurements and Models for Radio Path Loss and penetration Loss In and Around Homes and Trees at 5.85 GHz", *IEEE Transactions on Communications*, Vol 46, No 11, Nov 1998, pp. 1484-1496
- 1998** **No Award**

- 1997** Claude Berrou
Alan Glavieux **"Near Optimum Error Correcting Coding and Decoding: Turbo-Codes"**, *IEEE Transactions on Communications*, October 1996, Volume 44, Number 10, pp 1261-1271
- 1996** G. Golden
J.Mazo
J Salz **"Transmitter design for data transmission in the presence of data-like interferer"**, *IEEE Transactions on Communications*, Volume 43, Feb/Mar/Apr 1995
- 1995** Ender Ayanoglu
Israel Bar-David
Chih-Lin I
Richard D. Gitlin **"Analog Diversity Coding to Provide Transparent Self-Healing Communication Networks"**, *IEEE Transactions on Communications*, Volume 42, No. 1, January 1994
- 1994** A.J. Viterbi
A.M. Viterbi
E. Zehavi **"Performance of Power-Controlled Wideband Terrestrial Digital Communications"**, *IEEE Transactions on Communications*, Volume 41, No. 4, April 1993
- 1987** H. Heffes
D.M. Lucantoni **"A Markov Modulated Characterization of Packetized Voice and Data Traffic and Related Statistical Multiplexer Performance"**, *IEEE J. on Selected Areas in Communications, Special Issue on Network Performance Evaluation, Vol. SAC-4*, No. 6, 856-68, 1986

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