

Stanford



John M. Cioffi

Hitachi America Professor in the School of Engineering, Emeritus
Electrical Engineering

CONTACT INFORMATION

- **Administrative Contact**

Helen Niu - Administrative Associate

Email helen.niu@stanford.edu

Tel 650-723-8121

Bio

BIO

John M. Cioffi teaches Stanford's graduate electrical engineering course sequence in digital communications, part-time as recalled emeritus presently, from 1986 to the present. Cioffi's research interests are in the theory of transmitting the highest possible data rates on a number of different communications channels, many of which efforts spun out of Stanford through he and/or his many former PhD students to companies, most notably including the basic designed globally used 500 million DSL connections. Cioffi also oversaw the prototype developments for the worlds first cable modem and digital-audio broadcast systems. Cioffi pioneering the use of remote management algorithms to improve (over the internet or cloud) both wireline (DSL) and wireless (Wi-Fi) physical-layer transmission performance, an area often known as Dynamic Spectrum Management or Dynamic Line Management. Cioffi is co-inventor on basic patents for vectored DSL transmission and optimized MIMO wireless transmission. In his early career, Cioffi developed the worlds first full-duplex voiceband data modem while at Bell Laboratories, and the worlds first adaptively equalized disk read channel while at IBM. His courses and research projects over the years center on the area of multiuser transmission methods.

ACADEMIC APPOINTMENTS

- Professor Emeritus, Electrical Engineering

ADMINISTRATIVE APPOINTMENTS

- Chief Executive Officer, ASSIA INc., (2003-2022)
- Chief Technical Officer & VP, Engineering, Amati Communications Corp, (1989-1997)
- Research Staff Member, IBM Research, (1984-1986)
- Member Technical Staff, AT&T Bell Laboratories, (1978-1984)

HONORS AND AWARDS

- Women in Communications Engineering Mentoring Award, IEEE (2019)
- CTA Hall of Fame, Consumer Technology Association (2018)
- Hall of Fame Member, Internet Society (2014)
- Kirchmayer Graduate Teaching Award, IEEE (2014)
- Lifetime Achievement Award, Broadband World Forum (2014)

- Armstrong Communications Award, IEEE (2013)
- 2010 Communication Innovations Award, Economist Magazine (2010)
- Alexander Graham Bell Medal, IEEE (2010)
- Honorary Doctorate, University of Edinburgh (2010)
- Member, UK Royal Society of Engineering (2009)
- International Marconi Fellow, Marconi Society (2006)
- Kobayashi Award, IEEE (2001)
- Member, US National Academy of Engineering (2001)
- JJ Thomson Medal (2000), IEE (UK) (2000)
- Millennium Medal, IEEE (2000)
- Fellow, IEEE (1996)
- T1 Outstanding Achievement Award, American National Standards Institute (1995)
- Best Paper Awards, IEEE Communications Magazine (1991 and 2007)
- Presidential Investigator (1987-1992), NSF and US President R. Regan (1987-1992)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Vice Chair, Board of Directors, Marconi Society (2008 - present)
- Member, Board of Directors, Alto Beam (2007 - 2021)
- Chair, Board of Directors, PhyTunes inc. (2020 - present)
- Chairman and CEO, ASSIA Inc (2003 - present)
- Member, Board of Directors, Marvell Semiconductor (1999 - 2006)
- Member, Board of Directors, Amati Communications Corp (1989 - 1998)
- Chief Technical Officer & VP, Engineering, Amati Communications Corp (1989 - 1998)
- Member, Board of Directors, Vector Silicon Inc. (2007 - 2011)
- Member, Board of Directors, Teranetics Corp. (2002 - 2009)
- Member, Board of Directors, Tinoq Inc. (2015 - present)
- Member, Board of Directors, Teknovus (2000 - 2005)
- Member, Board of Directors, Coppercom (1999 - 2003)
- Member, Board of Directors, ITEX (1999 - 2003)

PROGRAM AFFILIATIONS

- Stanford SystemX Alliance

PROFESSIONAL EDUCATION

- PhD, Stanford , EE (1984)
- MSEE, Stanford , EE (1979)
- BSEE, University of Illinois , EE (1978)

PATENTS

- John Cioffi et al.. "United States Patent 10,530,695 Systems and methods for traffic aggregation on multiple WAN backhauls and multiple distinct LAN networks", ASSIA Inc., Jan 7, 2020
- Ginis, Georgios; Yu, Wei; Zeng; Chaouang; Cioffi; John M.. "United States Patent 10,404,300 Dynamic digital communication system contro", Leland Stanford Junior University, Sep 3, 2019

- Kerpez, Kenneth J.; Cioffi, John M.; Goldberg, Marc. "United States Patent 10,263,866 DSL neighborhood diagnostics", ASSIA Inc., Apr 16, 2019
- John Cioffi, Wonjong Rhee, George Ginis, Mark Brady, Peter Silverman. "United States Patent 10,050,725 Method and apparatus for DSL performance enhancement in a DSL network", Adaptive Spectrum and Signal Alignment, Inc., Aug 14, 2018
- John M. Cioffi, Mark B. Flowers, Mark Brady, Ardavan Maleki Tehrani, Marc Goldberg, Georgios Ginis, Peter Silverman. "United States Patent 9,941,928 Systems, methods, and apparatuses for implementing a DSL system", Adaptive Spectrum and Signal Alignment, Inc., Apr 10, 2018
- John Cioffi, Georgios Ginis, Wei Yu, Chaohuang Zeng. "United States Patent 9,843,348 Dynamic digital communication system control", Stanford University, Dec 12, 2017
- John Cioffi, Mark B. Flowers, Mark Mallory, Mark Brady, Mehdi Mohseni. "United States Patent 9,819,388 DSL Noise Cancellation", Adaptive Spectrum and Signal Alignment, Inc., Nov 14, 2017
- John Cioffi, Wonjong Rhee, Georgios Ginis, Sumanth Jagannathan. "United States Patent 9,391,744 Method and apparatus for analyzing and mitigating noise in a digital subscriber line", Adaptive Spectrum and Signal Alignment, Inc., Jul 12, 2016
- John Cioffi, Wonjong Rhee, Georgios Ginis, Sumanth Jagannathan, Peter Silverman, Mehdi Mohseni. "United States Patent 9,203,724 DSL system", Adaptive Spectrum and Signal Alignment, Inc., Dec 1, 2015
- Wonjong Rhee, John M. Cioffi, Georgios Ginis, Peter Silverman. "United States Patent 9,178,777 User-preference-based DSL system", Adaptive Spectrum and Signal Alignment, Inc., Nov 3, 2015
- John Cioffi. "United States Patent 9,160,385 Dynamic digital communication system control", Stanford University, Oct 13, 2015
- John M. Cioffi, Wonjong Rhee, Bin Lee, Seong Tak Chung, Georgis Ginis. "United States Patent 9,071,534 DSL system estimation", Adaptive Spectrum and Signal Alignment, Inc., Jun 30, 2015
- Wonjong Rhee, John Cioffi, Peter Silverman, Georgios Ginis. "United States Patent 8,972,549 User-preference-based DSL system", Adaptive Spectrum and Signal Alignment, Inc., Mar 3, 2015
- Wonjong Rhee, John M. Cioffi, Georgios Ginis, Peter Silverman. "United States Patent 8,948,026 User-preference-based DSL system", Adaptive Spectrum and Signal Alignment, Inc., Feb 3, 2015
- John Cioffi. "United States Patent 9,369,232 Apparatus, systems and methods for impulse noise detection and mitigation", Chan Soo Hwang, Mithat Dogan, John M. Cioffi, Mark B. Flowers, Sina Barkeshli, Nov 4, 2014
- John Cioffi, George Ginis, Sumanth Jagannathan. "United States Patent 8,842,527 High speed multiple user multiple loop DSL system", Adaptive Spectrum and Signal Alignment, Inc., Sep 23, 2014
- John Cioffi, George Ginis, Sumanth Jagannathan. "United States Patent 8,842,527 High speed multiple user multiple loop DSL system", Adaptive Spectrum and Signal Alignment, Inc., Sep 23, 2014
- John M. Cioffi, Wonjong Rhee, Bin Lee, Georgis Ginis. "United States Patent 8,761,348 DSL system training", Adaptive Spectrum and Signal Alignment, Inc., Jun 24, 2014
- Georgios Ginis, Wei Yu, Chaohuang Zeng, and John M. Cioffi. "United States Patent 8,681,897 Dynamic digital communication system control", Stanford University, Mar 25, 2014
- John M. Cioffi, George Ginis, Peter J. Silverman, Bin Lee, Richard Dennis Hart. "United States Patent 8,644,169 Methods and apparatus to perform line testing at customer premises", Adaptive Spectrum and Signal Alignment, Inc. and AT&T Intellectual Property I, L.P., Feb 4, 2014
- John M. Cioffi, Wonjong Rhee, Georgis Ginis, Mark Brady, Peter J. Silverman. "United States Patent 8,483,369 DSL System training", Jul 9, 2013
- John Cioffi, Wonjong Rhee, George Ginis, Sumanth Jagannathan. "United States Patent 8,428,225 Method and apparatus for analyzing and mitigating noise in a digital subscriber line", Adaptive Spectrum and Signal Alignment, Inc., Apr 23, 2013
- Mark B. Flowers, John M. Cioffi, Seong Taek Chung. "United States Patent 8,363,788 DSL ring signal compatibility", Adaptive Spectrum and Signal Alignment, Inc., Jan 29, 2013
- John M. Cioffi, Bin Lee, Wonjong Rhee, Georgios Ginis. "United States Patent 8,310,914 Phantom use in DSL system", Adaptive Spectrum and Signal Alignment, Inc., Nov 13, 2012
- Georgios Ginis, Wei Yu, Chaohuang Zeng, John Cioffi. "United States Patent 8,081,704 Dynamic digital communication system control", Stanford University, Dec 20, 2011
- Wonjong Rhee, John Cioffi, BinLee, Iker Almandoz, JohnM. Cioffi, Georgios Ginis. "United States Patent 8,073,135 Binder identification", Adaptive Spectrum and Signal Alignment, Inc., Dec 6, 2011
- John Cioffi and Avneesh Agrawal. "United States Patent 8064325 Concurrent frequency-sharing multi-user communication system with rate allocation approach", Stanford University, Nov 22, 2011
- Wonjong Rhee, John Cioffi. "United States Patent 8,045,629 DSL data collection system", Adaptive Spectrum and Signal Alignment, Inc., Oct 25, 2011
- John Cioffi, Wonjong Rhee, Georgios Ginis, Taek Seong Chung. "United States Patent 8,031,761 Adaptive margin and band control", Adaptive Spectrum and Signal Alignment, Inc., Oct 4, 2011
- John Cioffi, Wonjong Rhee, Georgios Ginis, Sumanth Jagannathan, Peter Silverman, Mehdi Mohseni. "United States Patent 8,009,665 DSL system training", Adaptive Spectrum and Signal Alignment, Inc., Aug 30, 2011

- John Cioffi, Wonjong Rhee, Bin Lee, Georgios Ginis. "United States Patent 7,991,122 DSL system training", Adaptive Spectrum and Signal Alignment, Inc., Aug 2, 2011
- John Cioffi, Wonjong Rhee, Bin Lee, Seong Taek Chung, Georgios Ginis. "United States Patent 7,924,736 DSL system estimation", Adaptive Spectrum and Signal Alignment, Inc., Apr 12, 2011
- John Cioffi, Wonjong Rhee, Bin Lee, Iker Almandoz, George Gini. "United States Patent 7,881,438 Self-learning and self-adjusting DSL system", Adaptive Spectrum and Signal Alignment, Inc., Feb 1, 2011
- Wonjong Rhee, Iker Almandoz, John Cioffi, Bin Lee, Georgios Ginis. "United States Patent 7,852,952 DSL system loading and ordering", Adaptive Spectrum and Signal Alignment, Inc., Dec 14, 2010
- John Cioffi, Wonjong Rhee, George Ginis, Seong Taek Chung. "United States Patent 7,830,955 Adaptive margin and band control", Adaptive Spectrum and Signal Alignment, Inc., Nov 9, 2010
- John Cioffi, Wonjong Rhee, George Ginis. "United States Patent 7,817,745 Tonal Precoding", Adaptive Spectrum and Signal Alignment, Inc., Oct 19, 2010
- John Cioffi, Wonjong Rhee, Bin Lee, George Ginis. "United States Patent 7,813,420 Adaptive GDFE", Adaptive Spectrum and Signal Alignment, Inc., Oct 12, 2010
- Wonjong Rhee, Mark Brady, John Cioffi. "United States Patent 7,809,116 DSL system estimation including known DSL line scanning and bad splice detection capability", Adaptive Spectrum and Signal Alignment, Inc., Oct 5, 2010
- John Cioffi. "United States Patent 7,809,996 Adaptive FEC codeword management", Adaptive Spectrum and Signal Alignment, Inc., Oct 5, 2010
- John Cioffi, Iker Almandoz, Georgios Ginis. "United States Patent 7,774,398 Tonal rotors", Adaptive Spectrum and Signal Alignment, Inc., Aug 10, 2010
- John Cioffi. "United States Patent 7,773,497 Phantom use in DSL systems", Adaptive Spectrum and Signal Alignment, Inc., Aug 10, 2010
- John Cioffi, Wonjong Rhee. "United States Patent 7,711,530 DSL system estimation and parameter recommendation", Adaptive Spectrum and Signal Alignment, Inc., May 4, 2010
- John Cioffi, Georgios Ginis, Wei Yu, Chaohuang Zeng. "United States Patent 7,688,884 Vektored DSL nesting", Adaptive Spectrum and Signal Alignment, Inc., Mar 30, 2010
- Wonjong Rhee, John Cioffi, BinLee, Iker Almandoz, JohnM. Cioffi, Georgios Ginis, Thomas Sylke. "United States Patent 7,684,546 DSL system estimation and control", Adaptive Spectrum and Signal Alignment, Inc., Mar 23, 2010
- John Cioffi, Georgios Ginis, Wei Yu, Chaohuang Zeng. "United States Patent 7,657,818 Dynamic minimum-memory interleaving", Adaptive Spectrum and Signal Alignment, Inc., Feb 2, 2010
- John Cioffi. "United States Patent 7,639,596 High speed multiple loop DSL system", Adaptive Spectrum and Signal Alignment, Inc., Dec 29, 2009
- John Cioffi, Wonjong Rhee. "United States Patent 7,606,350 Incentive-based DSL system", Adaptive Spectrum and Signal Alignment, Inc., Oct 20, 2009
- Jungwon Lee, John Cioffi, Seong Taek Chung. "United States Patent 7,593,426 Bit rate and power allocation for multi-carrier communication systems", Stanford University, Sep 22, 2009
- John Cioffi. "United States Patent 7,593,458 FEXT determination system", Adaptive Spectrum and Signal Alignment, Inc., Sep 22, 2009
- John Cioffi. "United States Patent 7,573,943 Interference cancellation system", Adaptive Spectrum and Signal Alignment, Inc., Aug 11, 2009
- John Cioffi, Wonjong Rhee. "United States Patent 7,558,315 Adaptive margin and band control in digital subscriber line (DSL) systems", Adaptive Spectrum and Signal Alignment, Inc., Jul 7, 2009
- Wonjong Rhee, John Cioffi. "United States Patent 7,535,966 DSL data collection system", Adaptive Spectrum and Signal Alignment, Inc., May 19, 2009
- Wonjong Rhee, Iker Almandoz, John Cioffi. "United States Patent 7,460,588 Digital subscriber line (DSL) state and line profile control", Adaptive Spectrum and Signal Alignment, Inc., Dec 2, 2008
- John Cioffi. "United States Patent 7,428,669 Adaptive FEC codeword management", Adaptive Spectrum and Signal Alignment, Inc., Sep 23, 2008
- Kaxutomo Hasegawa, Georgios Ginis, Carlos Aldana, John M. Cioffi. "United States Patent 7,394,752 Joint reduction of NEXT and FEXT in xDSL systems", Stanford University, Jul 1, 2008
- John Cioffi, Wonjong Rhee. "United States Patent 7,302,379 DSL system estimation and parameter recommendation", Adaptive Spectrum and Signal Alignment, Inc., Nov 27, 2007
- Georgios Ginis, Wei Yu, Chaohuang Zeng, John Cioffi. "United States Patent 7,158,563 Dynamic digital communication system control", Stanford University, Jan 2, 2007
- John Cioffi, John A.C. Bingham, Krista Jacobsen. "United States Patent 7,110,370 Method and apparatus for coordinating multi-point to point communications in a multi-tone data transmission system", Texas Instruments, Sep 19, 2006
- John Cioffi, John A.C. Bingham, Krista Jacobsen. "United States Patent 7,079,549 Method and apparatus for coordinating multi-point to point communications in a multi-tone data transmission system", Texas Instruments, Jul 18, 2006
- John Cioffi, John A.C. Bingham, Krista Jacobsen. "United States Patent 7,068,678 Method and apparatus for coordinating multi-point to point communications in a multi-tone data transmission system", Texas Instruments, Jun 27, 2006

- Kok-Wui Cheong, Won-Joon Choi, Johnny Li-Shung Fan, Zining Wu, John M. Cioffi. "United States Patent 7,027,537 Iterative multi-user detection", Stanford University, Apr 11, 2006
- Chaohuang Zeng, Carlos Aldana, Atul Salvekar, John M. Cioffi. "United States Patent 6,990,196 Crosstalk identification in xDSL systems", Stanford University, Jan 24, 2006
- John Cioffi, John A.C. Bingham, Krista Jacobsen. "United States Patent 6,937,623 Method and apparatus for coordinating multi-point to point communications in a multi-tone data transmission system", Texas Instruments, Aug 30, 2005
- Louise Hoo, Atul Salvekar, Carlos Aldana, John M. Cioffi, Peter Chow, James Carlo. "United States Patent 6,829,307 Express bit swapping in a multicarrier transmission system", Texas Instruments and Stanford University, Dec 7, 2004
- Jose Tellado and John Cioffi. "United States Patent 6,512,797 Peak to average power ratio reduction", Stanford University, Jan 28, 2003
- John Cioffi, John A.C. Bingham, Krista Jacobsen. "United States Patent 6,473,438 Method and apparatus for coordinating multi-point to-point communications in a multi-tone data transmission system", Texas Instruments and Stanford University, Oct 29, 2002
- Jose Tellado and John M. Cioffi. "United States Patent 6,424,681 Peak to average power ratio reduction", Stanford University, Jul 23, 2002
- Jose Tellado, John Cioffi. "United States Patent 6,314,146 Peak to average power ratio reduction", Stanford University, Nov 6, 2001
- Richard D. Wesel, John Cioffi. "United States Patent 6,125,150 Transmission system using code designed for transmission with periodic interleaving", Stanford University, Sep 26, 2000
- John M. Cioffi, Mark P. Mallory, John A.C. Bingham. "United States Patent 5,995,567 Radio frequency noise canceller", Texas Instruments, Nov 30, 1999
- John Cioffi. "United States Patent 5,993,454 Multi-carrier data transmissions system using an overhead bus for synchronizing multiple remote units", Amati Communications Corp, Aug 3, 1999
- John Cioffi. "United States Patent 5,887,032 Method and apparatus for crosstalk cancellation", Amati Communications Corp, Mar 23, 1999
- John M. Cioffi, John A.C. Bingham, Mark P. Mallory,. "United States Patent 5,838,799 Digital sound broadcasting using a dedicated control channel", Amati Communications Corp, Nov 17, 1998
- John M. Cioffi, John A.C. Bingham, Mark P. Mallory,. "United States Patent 5,838,799 Digital sound broadcasting using a dedicated control channel", Amati Communications Corp, Nov 17, 1998
- Jacky S. Chow, John A.C. Bingham, Mark B. Flowers, John M. Cioffi. "United States Patent 5,787,113 Mitigating clipping and quantization effects in digital transmission systems", Amati Communications Corp, Jul 28, 1998
- Nicholas Zogakis, John Cioffi. "United States Patent 5,774,500 Multi-channel trellis shaper", Amati Communications Corp, Jan 30, 1998
- John Cioffi. "United States Patent 5,625,651 Discrete multi-tone data transmission system using an overhead bus for synchronizing multiple remote units", Amati Communications Corp, Apr 29, 1997
- Jacky S. Chow, John A.C. Bingham, Mark B. Flowers, John M. Cioffi. "United States Patent 5,623,513 Mitigating clipping and quantization effects in digital transmission systems", Amati Communications Corp, Apr 22, 1997
- John Cioffi, Po Tong, James Aslanis, Antoinette H. Gooch,. "United States Patent 5,596,604 Multicarrier modulation transmission system with variable delay", Amati Communications Corp, Jan 21, 1997
- John Cioffi. "United States Patent 5,519,731 ADSL compatible discrete multi-tone apparatus for mitigation of T1 noise", Amati Communications Corp, May 21, 1996
- Peter S. Chow, John M. Cioffi. "United States Patent 5,479,447 Method and apparatus for adaptive, variable bandwidth, high-speed data transmission of a multicarrier signal over digital subscriber lines", Stanford University, Dec 26, 1995
- Kevin D. Fisher, William L. Abbott, John M. Cioffi, Philip S. Bednarz. "United States Patent 5,430,661 Adaptive decision feedback equalizer apparatus for processing information stored on digital storage media", Stanford University, Jul 4, 1995
- Minnie Ho, John M. Cioffi. "United States Patent 5,317,596 Method and apparatus for echo cancellation with discrete multitone modulation", Stanford University, May 31, 1994
- Jacky S. Chow, John M. Cioffi. "United States Patent 5,285,474 Method for equalizing a multicarrier signal in a multicarrier communication system", Stanford University, Feb 8, 1994
- Huiling Lou, John Cioffi. "United States Patent 5,220,570 Programmable viterbi signal processor", Stanford University, Jun 15, 1993
- Kevin D. Fisher, William L. Abbott, John M. Cioffi, Philip S. Bednarz. "United States Patent 5,132,988 Adaptive decision feedback equalizer apparatus for processing information stored on digital storage media", Stanford University, Jul 21, 1992

LINKS

- My Stanford Group: <http://web.stanford.edu/group/cioffi/>
- ASSIA Inc: <https://www.assia-inc.com/about-us/leadership/>
- Marconi Fellow Page: <http://marconisociety.org/fellows/john-cioffi/>

- Google Scholar Page: <https://scholar.google.com/citations?user=x5jbQkEAAAAJ&hl=en>

Teaching

COURSES

2022-23

- Multi-User Data Transmission: EE 392AA (Spr)

2020-21

- Multi-Dimensional Data Transmission: EE 392AA (Spr)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Ethan Liang

Doctoral (Program)

Yun Liao

Publications

PUBLICATIONS

- **Cellular Subscriber Lines (CSL): A Wireless-Wireline Physically Converged Architecture** *IEEE TRANSACTIONS ON COMMUNICATIONS*
Cioffi, J. M., Hwang, C., Kanellakopoulos, I., Oh, J., Kerpez, K. J.
2020; 68 (12): 7289–7310
- **Ergodic Spectrum Management** *IEEE TRANSACTIONS ON COMMUNICATIONS*
Cioffi, J. M., Hwang, C., Kerpez, K. J.
2020; 68 (3): 1794–1821
- **Optimum Equivalent Loading in Multi-Dimensional Transmission (invited paper)** *IEEE Open Journal of the Communications Society*
Cioffi, J. M., Chow, P. S., Kerpez, K. J.
2020; 1 (5): 681-699
- **Tearbit DSLs** *IEEE Communications Magazine*
Cioffi, J. M., Kerpez, K. J., Hwang, C., Kanellakopoulos, I.
2018; 56 (11)
- **Software-Defined Access Networks** *IEEE COMMUNICATIONS MAGAZINE*
Kerpez, K. J., Cioffi, J. M., Ginis, G., Goldberg, M., Galli, S., Silverman, P.
2014; 52 (9): 152-159
- **LIGHTING UP COPPER** *IEEE COMMUNICATIONS MAGAZINE*
Cioffi, J. M.
2011; 49 (5): 30-43
- **The ITU-T's new G.vector standard proliferates 100 Mb/s DSL** *IEEE Communications. Magazine*
Oksman, V., Schenk, H., Clausen, A., Cioffi, J., M., Mohseni, M., Ginis, G.
2010; 48 (10): 140–148
- **Digital subscriber line (DSL).** *Scholarpedia*
Cioffi, J., M., Jagannathan, S., Lee, W.
2008; 3: 3995
- **Gigabit DSL** *IEEE TRANSACTIONS ON COMMUNICATIONS*
Lee, B., Cioffi, J. M., Jagannathan, S., Mohseni, M.

2007; 55 (9): 1689-1692

- **Ask me again in ten years** *IEEE SIGNAL PROCESSING MAGAZINE*
Cioffi, J. M.
2004; 21 (6): 8-?
- **Sum capacity of Gaussian vector broadcast channels** *IEEE International Symposium on Information Theory*
Yu, W., Cioffi, J. M.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2004: 1875-92
- **Dynamic spectrum management: a methodology for providing significantly higher broadband capacity to the users** *Teletronikk*
Cioffi, J., M., Mohseni, M.
2004; 100 (4): 126-137
- **Iterative water-filling for Gaussian vector multiple access channels**
Yu, W., Rhee, W., Boyd, S., Cioffi, J., M.
2001
- **Vectored-DMT: A FEXT canceling modulation scheme for coordinating users** *IEEE International Conference on Communications*
Ginis, G., Cioffi, J. M.
IEEE.2001: 305-309
- **Very high-speed Digital Subscriber Lines (VDSL)**
Cioffi, J., M.
1998
- **Canonical packet transmission on the ISI channel with Gaussian noise**
Cioffi, J., M., Forney Jr., G., D.
1996
- **Spatio-temporal coding for wireless communications**
Raleigh, G., G., Cioffi, J., M.
1996
- **MMSE Decision-Feedback Equalizers and Coding - Part II: Coding Results** *IEEE Transactions on Communications*
Cioffi, J., M., Dudoit, G., P., Eyuboglu, M., V., Forney Jr., G., D.
1995; 43 (10): 2595-2604
- **MMSE decision-feedback equalizers and coding - Part I: Equalization results** *IEEE Transactions on Communications*
Cioffi, J., M., Dudoit, G., P., Eyuboglu, M., V., Forney Jr., G., D.
1995; 43 (10): 2595-2604
- **Discrete multiple tone modulation with coset coding for the spectrally shaped channel** *IEEE Transactions on Communications*
Ruiz, A., Cioffi, J., M., Kasturia, S.
1992; 40 (6): 1012-1029
- **ADAPTIVE EQUALIZATION IN MAGNETIC-DISK STORAGE CHANNELS** *IEEE COMMUNICATIONS MAGAZINE*
Cioffi, J. M., ABBOTT, W. L., Thapar, H. K., MELAS, C. M., Fisher, K. D.
1990; 28 (2): 14-29
- **Vector coding for partial response channels** *IEEE Transactions on Information Theory*
Kasturia, S., Aslanis, J., T., Cioffi, J., M.
1990; 36 (4): 741-762
- **LIMITED-PRECISION EFFECTS IN ADAPTIVE FILTERING** *IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS*
Cioffi, J. M.
1987; 34 (7): 821-833
- **Parallelism Versus Latency in Simplified Successive-Cancellation Decoding of Polar Codes** *IEEE Transactions on Wireless Communications*
Hashemi, A. S.

2022; 21 (6): 3909-3920

- **Construction of Polar Codes With Reinforcement Learning** *IEEE TRANSACTIONS ON COMMUNICATIONS*
Liao, Y., Hashemi, S., Cioffi, J. M., Goldsmith, A.
2022; 70 (1): 185-198
- **Threshold-Based Fast Successive-Cancellation Decoding of Polar Codes** *IEEE TRANSACTIONS ON COMMUNICATIONS*
Zheng, H., Hashemi, S., Balatsoukas-Stimming, A., Cao, Z., Koonen, T., Cioffi, J. M., Goldsmith, A.
2021; 69 (6): 3541-3555
- **Sublinear Latency for Simplified Successive Cancellation Decoding of Polar Codes** *IEEE TRANSACTIONS ON WIRELESS COMMUNICATIONS*
Mondelli, M., Hashemi, S., Cioffi, J. M., Goldsmith, A.
2021; 20 (1): 18-27
- **Parallelism versus Latency in Simplified Successive-Cancellation Decoding of Polar Codes**
Hashemi, S., Mondelli, M., Fazeli, A., Vardy, A., Cioffi, J., Goldsmith, A., IEEE
IEEE.2021: 2369-2374
- **Calendar Allocation Based on Client Traffic in the Flexible Ethernet Standard**
Liao, Y., Hashemi, S., ElBakoury, H., Cioffi, J., Goldsmith, A., IEEE
IEEE.2020
- **Simplified Successive Cancellation Decoding of Polar Codes Has Sublinear Latency**
Mondelli, M., Hashemi, S., Cioffi, J., Goldsmith, A., IEEE
IEEE.2020: 401-406
- **Construction of Polar Codes with Reinforcement Learning**
Liao, Y., Hashemi, S., Cioffi, J., Goldsmith, A., IEEE
IEEE.2020
- **A Wire Waveguide Channel for Terabit-Per-Second Links** *Applied Physics letters*
Rabi, S., Kerpez, K. J., Hwang, C., Mohseni, M., Cioffi, J. M., Mittleman, D. M.
2020; 116 (3)
- **An Efficient ADMM-aided Deep Learning-based Signal Detector for Uplink Massive MIMO**
Huang, H., Cioffi, J. M., Hashemi, S., IEEE
IEEE.2020
- **Threshold-Based Successive-Cancellation Decoding of Polar Codes**
Zheng, H., Hashemi, S., Cao, Z., Koonen, A. J., Cioffi, J., Goldsmith, A., IEEE
IEEE.2020
- **Opportunistic source-pair selection method with imperfect channel state information for multiuser bi-directional relaying networks** *IET COMMUNICATIONS*
Ozduran, V., Yarman, B., Cioffi, J. M.
2019; 13 (7): 905-17
- **An Optimal Cache Resource Allocation in Fog Radio Access Networks** *JOURNAL OF INTERNET TECHNOLOGY*
Bhandari, S., Zhao, H., Kim, H., Cioffi, J. M.
2019; 20 (7): 2063-69
- **Energy-Efficient Caching for Scalable Videos in Heterogeneous Networks** *IEEE JOURNAL ON SELECTED AREAS IN COMMUNICATIONS*
Zhang, X., Lv, T., Ni, W., Cioffi, J. M., Beaulieu, N. C., Guo, Y.
2018; 36 (8): 1802-15
- **Spectral-Efficient Cellular Communications With Coexistent One- and Two-Hop Transmissions** *IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY*
Li, C., Liu, P., Zou, C., Sun, F., Cioffi, J. M., Yang, L.
2016; 65 (8): 6765-6772
- **Multiuser Overhearing for Cooperative Two-Way Multiantenna Relays** *IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY*
Li, C., Yang, H. J., Sun, F., Cioffi, J. M., Yang, L.

2016; 65 (5): 3796-3802

- **Cooperative multiple access in cognitive radios to enhance QoS for cell edge primary users: asynchronous algorithm and convergence** *TELECOMMUNICATION SYSTEMS*
Han, S., Kim, H., Han, Y., Cioffi, J. M., Leung, V. C., Zander, J.
2016; 61 (4): 631-643
- **Coordinated Cognitive Tethering in Dense Wireless Areas** *ETRI JOURNAL*
Tabrizi, H., Farhadi, G., Cioffi, J. M., Aldabbagh, G.
2016; 38 (2): 314-325
- **Interference-tolerating transmission protocol design for three-cell systems** *TRANSACTIONS ON EMERGING TELECOMMUNICATIONS TECHNOLOGIES*
Li, C., Wang, P., Sun, F., Cioffi, J. M., Yang, L.
2016; 27 (4): 474-483
- **Adaptive Overhearing in Two-Way Multi-Antenna Relay Channels** *IEEE SIGNAL PROCESSING LETTERS*
Li, C., Yang, H. J., Sun, F., Cioffi, J. M., Yang, L.
2016; 23 (1): 117-120
- **Energy-Efficient Resource Allocation for Massive MIMO Amplify-and-Forward Relay Systems** *IEEE ACCESS*
Gao, H., Lv, T., Su, X., Yang, H., Cioffi, J. M.
2016; 4: 2771-2787
- **Overhearing Protocol Design Exploiting Intercell Interference in Cooperative Green Networks** *IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY*
Li, C., Zhang, S., Liu, P., Sun, F., Cioffi, J. M., Yang, L.
2016; 65 (1): 441-446
- **Spatial Reuse in Dense Wireless Areas: A Cross-Layer Optimization Approach via ADMM** *IEEE TRANSACTIONS ON WIRELESS COMMUNICATIONS*
Tabrizi, H., Peleato, B., Farhadi, G., Cioffi, J. M., Aldabbagh, G.
2015; 14 (12): 7083-7095
- **Distributed dynamic load balancing in a heterogeneous network using LTE and TV white spaces** *WIRELESS NETWORKS*
Aldabbagh, G., Bakhsh, S. T., Akkari, N., Tahir, S., Khan, S., Cioffi, J.
2015; 21 (7): 2413-2424
- **Energy-efficient transmission for decode-and-forward dual-hop networks with asymmetric traffic demands** *IET COMMUNICATIONS*
Li, C., Wang, J., Sun, F., Cioffi, J. M., Zheng, F., Yang, L.
2015; 9 (14): 1781-1787
- **Adaptive Read Thresholds for NAND Flash** *IEEE TRANSACTIONS ON COMMUNICATIONS*
Peleato, B., Agarwal, R., Cioffi, J. M., Qin, M., Siegel, P. H.
2015; 63 (9): 3069-3081
- **Coordinated Tethering Over White Spaces** *IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY*
Tabrizi, H., Farhadi, G., Cioffi, J. M., Aldabbagh, G.
2015; 64 (9): 4170-4179
- **Capacity Scaling and Diversity Order for Secure Cooperative Relaying With Untrustworthy Relays** *IEEE TRANSACTIONS ON WIRELESS COMMUNICATIONS*
Kim, J., Lim, J., Cioffi, J. M.
2015; 14 (7): 3866-3876
- **QoS-Aware Tethering in a Heterogeneous Wireless Network using LTE and TV White Spaces** *COMPUTER NETWORKS*
Aldabbagh, G., Bakhsh, S. T., Akkari, N., Tahir, S., Tabrizi, H., Cioffi, J.
2015; 81: 136-146
- **Bit Loading Profiles for High-Speed Data in DOCSIS 3.1** *IEEE COMMUNICATIONS MAGAZINE*
Mehmood, H., Rahman, S., Cioffi, J. M.
2015; 53 (3): 114-120
- **Amplify-and-Forward Distributed Beamforming with Local CSI in the Presence of Interferences** *MATHEMATICAL PROBLEMS IN ENGINEERING*

-
- Kim, J., Choi, J., Choi, H., Cioffi, J. M.
2015
- **Cooperative Distributed Beamforming With Outdated CSI and Channel Estimation Errors** *IEEE TRANSACTIONS ON COMMUNICATIONS*
Kim, J., Choi, J., Cioffi, J. M.
2014; 62 (12): 4269-4280
 - **Degree-of-Freedom Based Transmission Protocol Design with Optimization for Multi-Cell Multi-User Green Systems** *IEEE TRANSACTIONS ON COMMUNICATIONS*
Li, C., Zhang, Y., Cioffi, J. M., Yang, L.
2014; E97B (12): 2784-2789
 - **Approximate Closed-Form Energy Efficient PA for MIMO Relaying Systems in the High SNR Regime** *IEEE COMMUNICATIONS LETTERS*
Li, C., Yang, H. J., Sun, F., Cioffi, J. M., Yang, L.
2014; 18 (8): 1367-1370
 - **Energy Efficient MIMO Relay Transmissions via Joint Power Allocations** *IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS II-EXPRESS BRIEFS*
Li, C., Sun, F., Cioffi, J. M., Yang, L.
2014; 61 (7): 531-535
 - **Optimal energy efficient joint power allocation for two-hop single-antenna relaying systems** *TRANSACTIONS ON EMERGING TELECOMMUNICATIONS TECHNOLOGIES*
Li, C., Cioffi, J. M., Yang, L.
2014; 25 (7): 745-751
 - **Dynamic Clustering Protocol for coordinated tethering over cellular networks** *JOURNAL OF NETWORK AND COMPUTER APPLICATIONS*
Akkari, N., Aldabbagh, G., Nahas, M., Cioffi, J.
2014; 42: 92-101
 - **Spatial Spectrum Sharing for Heterogeneous SIMO Networks** *IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY*
Kwon, T., Cioffi, J. M.
2014; 63 (2): 688-702
 - **A Geometric-Statistic Channel Model for THz Indoor Communications** *JOURNAL OF INFRARED MILLIMETER AND TERAHERTZ WAVES*
Choi, Y., Choi, J., Cioffi, J. M.
2013; 34 (7-8): 456-467
 - **Achieving Full Diversity in Multi-Antenna Two-Way Relay Networks via Symbol-Based Physical-Layer Network Coding** *IEEE TRANSACTIONS ON WIRELESS COMMUNICATIONS*
Cao, R., Lv, T., Gao, H., Yang, S., Cioffi, J. M.
2013; 12 (7): 3445-3457
 - **Random Deployment of Data Collectors for Serving Randomly-Located Sensors** *IEEE TRANSACTIONS ON WIRELESS COMMUNICATIONS*
Kwon, T., Cioffi, J. M.
2013; 12 (6): 2556-2565
 - **A Distributed Power Allocation Scheme for Sum-Rate Maximization on Cognitive GMACs** *IEEE TRANSACTIONS ON COMMUNICATIONS*
Han, S., Kim, H., Han, Y., Cioffi, J. M., Leung, V. C.
2013; 61 (1): 248-256
 - **Distributed Power Allocation for Cooperative Access in Cognitive Radios to Guarantee QoS for Cell Edge Primary Users** *6th Joint IFIP Wireless and Mobile Networking Conference (WMNC)*
Han, S., Kim, H., Han, Y., Cioffi, J. M., Zander, J., Leung, V. C.
IEEE.2013
 - **Opportunistic Source-Pair Selection (OSPS) Method for Multiuser Bi-directional Wireless Relaying Networks** *IEEE 14th Workshop on Signal Processing Advances in Wireless Communications (SPAWC)*
Ozduran, V., Cioffi, J. M., Yarman, S. B.
IEEE.2013: 565-569

- **Coordinated Tethering over Cellular Networks: Handover Scenarios and Signaling** *IEEE 24th International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC)*
Akkari, N., Aldabbagh, G., Nahas, M., Bawazeer, B., Cioffi, J., Tabrizi, H.
IEEE.2013: 2170–2174
- **An Asynchronous Distributed Power Allocation Scheme for Sum-Rate Maximization on Cognitive GMACs** *6th Joint IFIP Wireless and Mobile Networking Conference (WMNC)*
Han, S., Kim, H., Han, Y., Leung, V. C., Cioffi, J. M., Zander, J.
IEEE.2013
- **Tethering Over TV White-space: Dynamic Hotspot Selection and Resource Allocation** *IEEE 78th Vehicular Technology Conference (VTC Fall)*
Tabrizi, H., Farhadi, G., Cioffi, J. M.
IEEE.2013
- **Enhanced Upstream Power Back-off For VDSL Lines** *IEEE International Conference on Communications (ICC)*
Mehmood, H., Cioffi, J. M., Kerpez, K.
IEEE.2013: 3996–4001
- **Opportunistic source-pair selection (OSPS) method for multiuser Bi-directional wireless relaying networks**
Ozduran, V., Cioffi, J., M., Yarman, S., B.
2013
- **A distributed power allocation scheme for sum-rate maximization on cognitive GMACs**
Han, S., Kim, H., Han, Y., Cioffi, J., M., Leung, V., C. M., Kim, R.
2013
- **Random deployment of data collectors for serving randomly-located sensors** *IEEE Transactions on Wireless Communications*
Kwon, T., Cioffi, J., M.
2013; 12 (6): 2556–2565
- **A geometric-statistic channel model for THz indoor communications** *Journal of Infrared, Millimeter, and Terahertz Waves*
Choi, Y., Choi, J., W., Cioffi, J., M.
2013; 34 (7–8): 456–467
- **Tethering Over TV White-space: Dynamic Hotspot Selection and Resource Allocation**
Tabrizi, H., Farhadi, G., Cioffi, J., M.
2013
- **Coordinated tethering over cellular networks: Handover scenarios and signaling**
Akkari, N., Aldabbagh, G., Nahas, M., Bawazeer, B., Cioffi, J., M., Tabrizi, H.
2013
- **Achieving Full Diversity in Multi-Antenna Two-Way Relay Networks via Symbol-Based Physical-Layer Network Coding** *IEEE Transactions on Wireless Communications*
Cao, R., Lv, T., Gao, H., Yang, S., Cioffi, J., M.
2013; 12 (7): 3445–3457
- **An asynchronous distributed power allocation scheme for sum-rate maximization on cognitive GMACs**
Han, S., Kim, H., Han, Y., Leung, V., C., Cioffi, J., M., Zander, J.
2013
- **Enhanced upstream power back-off: For VDSL lines**
Mehmood, H., Cioffi, J., M., Kerpez, K.
2013
- **Spatial Spectrum Sharing for Heterogeneous SIMO Networks** *IEEE Transactions on Vehicular Technology*
Kwon, T., Cioffi, J.
2013; PP (99): 1-1
- **Iterative Spectrum Shaping with Opportunistic Multiuser Detection** *IEEE TRANSACTIONS ON COMMUNICATIONS*

-
- Zhang, R., Cioffi, J. M.
2012; 60 (6): 1680-1691
- **Capacity Scaling Law in Opportunistic Amplify-and-Forward Relaying with Selective ID Feedback** *IEEE COMMUNICATIONS LETTERS*
Kim, J., Lim, J., Cioffi, J. M.
2012; 16 (5): 589-591
 - **Distributed Crosstalk Management for Upstream VDSL Using Dynamic Power Control** *IEEE TRANSACTIONS ON COMMUNICATIONS*
Chen, M., Rhee, W., Mohseni, M., Cioffi, J. M.
2012; 60 (4): 940-945
 - **Buffer Stability in Multi-User Streaming Systems Applying Water-Filling with Adaptive Levels** *IEEE COMMUNICATIONS LETTERS*
Huppert, C., Majjigi, V., Cioffi, J.
2012; 16 (3): 284-287
 - **ON THE DISTRIBUTION OF VALID PAGES WITH GREEDY GARBAGE COLLECTION FOR NAND FLASH** *IEEE Statistical Signal Processing Workshop (SSP)*
Peleato, B., Agarwal, R., Cioffi, J.
IEEE.2012: 500–503
 - **PROBABILISTIC GRAPHICAL MODEL FOR FLASH MEMORY PROGRAMMING** *IEEE Statistical Signal Processing Workshop (SSP)*
Peleato, B., Agarwal, R., Cioffi, J.
IEEE.2012: 788–791
 - **TOWARDS MINIMIZING READ TIME FOR NAND FLASH** *IEEE Global Communications Conference (GLOBECOM)*
Peleato, B., Agarwal, R., Cioffi, J., Qin, M., Siegel, P. H.
IEEE.2012: 3219–3224
 - **An Intelligent Power Save Mode Mechanism for IEEE 802.11 WLAN** *IEEE Global Communications Conference (GLOBECOM)*
Tabrizi, H., Farhadi, G., Cioffi, J.
IEEE.2012: 3460–3464
 - **On the distribution of valid pages with greedy garbage collection for NAND flash**
Peleato, B., Agarwal, R., Cioffi, J., M.
2012
 - **Towards minimizing read time for NAND flash**
Peleato, B., Agarwal, R., Cioffi, J., M., Qin, M., Siegel, P., H.
2012
 - **Probabilistic graphical model for flash memory programming**
Peleato, B., Agarwal, R., Cioffi, J., M.
2012
 - **Compatibility of vectored and non-vectored VDSL2**
Kerpez, K., Cioffi, J., M., Galli, S., Ginis, G., Goldberg, M., Mohseni, M.
2012
 - **An intelligent power save mode mechanism for IEEE 802.11 WLAN**
Tabrizi, H., Farhadi, G., Cioffi, J., M.
2012
 - **Dynamic handoff decision in heterogeneous wireless systems: Q-learning approach**
Tabrizi, H., Farhadi, G., Cioffi, J., M.
2012
 - **Dynamic Handoff Decision in Heterogeneous Wireless Systems: Q-Learning Approach** *IEEE International Conference on Communications (ICC)*
Tabrizi, H., Farhadi, G., Cioffi, J.
IEEE.2012

- **Optimization of Cooperative Inter-Operability in Heterogeneous Networks with Cognitive Ability** *IEEE COMMUNICATIONS LETTERS*
Choi, Y., Lee, Y., Cioffi, J. M.
2011; 15 (11): 1178-1180
- **Spectral Efficient Multihop Relaying Based on Alternate Transmission** *IEEE TRANSACTIONS ON WIRELESS COMMUNICATIONS*
Farhadi, G., Cioffi, J. M.
2011; 10 (11): 3601-3606
- **Exploiting Opportunistic Multiuser Detection in Decentralized Multiuser MIMO Systems** *IEEE TRANSACTIONS ON WIRELESS COMMUNICATIONS*
Zhang, R., Cioffi, J. M.
2011; 10 (8): 2474-2485
- **Joint Optimization of Complexity and Overhead for the Routing in Hierarchical Networks** *IEEE TRANSACTIONS ON PARALLEL AND DISTRIBUTED SYSTEMS*
Chang, S. Y., Wu, H., Cioffi, J. M.
2011; 22 (6): 1034-1041
- **Cooperative Wireless Multicell OFDMA Network with Backhaul Capacity Constraints** *IEEE International Conference on Communications (ICC)*
Chowdhery, A., Yu, W., Cioffi, J. M.
IEEE.2011
- **Practical Crosstalk Management for Upstream VDSL Using Dynamic Power Control**
Chen, M., Y., Rhee, W., Mohseni, M., Cioffi, J., M.
2011
- **On minimum peak-to-average power ratio spectral factorization**
Magesacher, T., Cioffi, J., M.
2011
- **A New and Improved Perfect Space-Time Code for 5 x 5 MIMO Channels** *73rd IEEE Vehicular Technology Conference (VTC Spring)*
Chen, M., Cioffi, J. M.
IEEE.2011
- **Predetermined Power Allocation for Opportunistic Beamforming with Limited Feedback** *IEEE TRANSACTIONS ON WIRELESS COMMUNICATIONS*
Kwon, H., Jang, E. W., Cioffi, J. M.
2011; 10 (1): 84-90
- **A Learning-based Network Selection Method in Heterogeneous Wireless Systems** *54th Annual IEEE Global Telecommunications Conference (GLOBECOM)*
Tabrizi, H., Farhadi, G., Cioffi, J.
IEEE.2011
- **Practical Crosstalk Management for Upstream VDSL Using Dynamic Power Control** *54th Annual IEEE Global Telecommunications Conference (GLOBECOM)*
Chen, M., Rhee, W., Mohseni, M., Cioffi, J. M.
IEEE.2011
- **The ITU-T's New G. vector Standard Proliferates 100 Mb/s DSL** *IEEE COMMUNICATIONS MAGAZINE*
Oksman, V., Schenk, H., Clausen, A., Cioffi, J. M., Mohseni, M., Ginis, G., Nuzman, C., Maes, J., Peeters, M., Fisher, K., Eriksson, P.
2010; 48 (10): 140-148
- **Efficient Power Allocation Schemes for Nonconvex Sum-Rate Maximization on Gaussian Cognitive MAC** *IEEE TRANSACTIONS ON COMMUNICATIONS*
Han, S., Kim, H., Han, Y., Cioffi, J. M.
2010; 58 (3): 753-757
- **Dynamic Spectrum Management for Upstream Mixtures of Vectored & Non-Vectored DSL** *IEEE Global Telecommunications Conference (GLOBECOM 2010)*
Chowdhery, A., Cioffi, J. M.
IEEE.2010
- **Novel PMEPR Control Approach for 64-and 256-QAM Coded OFDM Systems** *IEEE Global Telecommunications Conference (GLOBECOM 2010)*

-
- Huang, S. C., Wu, H., Cioffi, J. M.
IEEE.2010
- **A Distributed Power Allocation Scheme for Sum-Rate Maximization on Cognitive GMACs** *21st Annual IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC)*
Han, S., Kim, H., Han, Y., Cioffi, J. M., Leung, V. C.
IEEE.2010: 1854–1858
 - **Low Complexity Multi-user Rate Region Maximization for Frequency-Selective Interference Channel**
Raghavendra, R., Zou, H., Charafeddine, M., Han, Z., Cioffi, J., M.
2010
 - **Dynamic spectrum management for mixtures of vectored and non-vectored DSL systems**
Mohseni, M., Ginis, G., Cioffi, J., M.
2010
 - **On the Generality of $\mathbf{1}$ as a Non-Norm Element** *CoRR abs/1002.0205*
Li, H., C., Chen, M., Y., Cioffi, J., M.
2010
 - **Greening the copper access network with dynamic spectrum management** *International Journal of Autonomous and Adaptive Communications Systems*
Cioffi, J., M., Zou, H., Chowdhery, A., Jagannathan, S., Lee, W.
2010; 3 (4): 369–395
 - **Novel PMEPR control approach for 64- and 256-QAM coded OFDM systems**
Huang, S., C.-H., Wu, H., C., Cioffi, J., M.
2010
 - **An improved 8×8 approximately universal code with the large normalized diversity product**
Chen, M., Y., Li, H., C., Cioffi, J., M.
2010
 - **The effects of vectored DSL on network operations** *Journal of Telecommunications Management*
Ginis, G., Goldburg, M., Cioffi, J., M.
2010; 3 (2): 107–117
 - **Vectored DSL to the Rescue** *OSP (OutSide Plant) Mag.*
George, G., Mohseni, M., Cioffi, J., M.
2010: 26–29
 - **An Improved Number-Theoretic Method for Constructing Approximately Universal Codes** *IEEE Global Telecommunications Conference (GLOBECOM 2010)*
Chen, M., Cioffi, J. M.
IEEE.2010
 - **Preserving Antenna-Selection Diversity in Rayleigh Fading Channels via a Time-Efficient Algorithm** *2010 IEEE 71st Vehicular Technology Conference*
Chen, M., Chen, K., Cioffi, J. M.
IEEE.2010
 - **Stochastic Optimization for Variable Rate Applications with Time-Varying Statistics** *2010 IEEE International Conference on Communications*
Majjigi, V., O'Neill, D., Cioffi, J.
IEEE.2010
 - **An Improved 8×8 Approximately Universal Code With the Large Normalized Diversity Product** *2010 IEEE International Symposium on Information Theory*
Chen, M., Li, H., Cioffi, J. M.
IEEE.2010: 1052–1055
 - **Multi-User Buffer Control with Drift Fields** *IEEE Global Telecommunications Conference (GLOBECOM 2010)*
Majjigi, V., O'Neill, D., Huppert, C., Cioffi, J.
IEEE.2010

- **Space-Time Block Codes With Symbol-by-Symbol Maximum-Likelihood Detections** *IEEE JOURNAL OF SELECTED TOPICS IN SIGNAL PROCESSING*
Chen, M., Cioffi, J. M.
2009; 3 (6): 910-915
- **Multuser Diversity in a MIMO System With Opportunistic Feedback** *IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY*
So, J., Cioffi, J. M.
2009; 58 (9): 4909-4918
- **Handover in Multihop Cellular Networks** *IEEE COMMUNICATIONS MAGAZINE*
Cho, S., Jang, E. W., Cioffi, J. M.
2009; 47 (7): 64-73
- **Improving Power Efficiency of CSMA Wireless Networks Using Multi-User Diversity** *IEEE International Conference on Communications (ICC 2006)*
Hwang, C., Seong, K., Cioffi, J. M.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2009: 3313-19
- **Opportunistic CSMA/CA for Achieving Multi-User Diversity in Wireless LAN** *IEEE Global Communications Conference*
Hwang, C., Cioffi, J. M.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2009: 2972-82
- **An Efficient Symbol-Level Combining Scheme for MIMO Systems with Hybrid ARQ** *IEEE Global Telecommunications Conference (GLOBECOM 07)*
Jang, E. W., Lee, J., Song, L., Cioffi, J. M.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2009: 2443-51
- **Common-Mode Data Transmission Using the Binder Sheath in Digital Subscriber Lines** *World Telecommunications Conference 2006*
Jagannathan, S., Pourahmad, V., Seong, K., Cioffi, J. M., Ouzzif, M., Tarafi, R.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2009: 831-40
- **Opportunistic Feedback With a Reservation Channel in a Wireless TDD System** *IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY*
So, J., Cioffi, J. M.
2009; 58 (3): 1612-1616
- **Feedback Reduction Scheme for Downlink Multuser Diversity** *IEEE TRANSACTIONS ON WIRELESS COMMUNICATIONS*
So, J., Cioffi, J. A.
2009; 8 (2): 668-672
- **On the Combining Schemes for MIMO Systems with Hybrid ARQ** *IEEE International Symposium on Information Theory*
Jang, E. W., Lee, J., Lou, H., Cioffi, J. M.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2009: 836-42
- **Space-Time Block Codes with Symbol-by-Symbol Maximum Likelihood Detections** *IEEE International Conference on Communications (ICC 2009)*
Chen, M., Cioffi, J. M.
IEEE.2009: 3852-3856
- **Iterative Spectrum Shaping with Opportunistic Multuser Detection** *IEEE International Symposium on Information Theory (ISIT 2009)*
Zhang, R., Cioffi, J. M.
IEEE.2009: 2679-2683
- **Exploiting Opportunistic Multuser Detection in Decentralized Multuser MIMO Systems** *IEEE Global Telecommunications Conference (GLOBECOM 09)*
Zhang, R., Cioffi, J. M.
IEEE.2009: 2363-2367
- **A Novel Bit-level DS Combining Scheme for MIMO Systems with HARQ** *IEEE International Symposium on Information Theory (ISIT 2009)*
Xia, J., Lv, T., Li, Y., Cioffi, J. M.
IEEE.2009: 244-248
- **On the Performance of Compressed Interference Forwarding for Uplink Base Station Cooperation** *IEEE Global Telecommunications Conference (GLOBECOM 09)*
Grieger, M., Marsch, P., Fettweis, G., Cioffi, J. M.
IEEE.2009: 5031-5036

- **Optimal Resource Allocation in the OFDMA Downlink with Feedback of Buffer State Information** *IEEE Global Telecommunications Conference (GLOBECOM 09)*
Agarwal, R., Cioffi, J. M.
IEEE.2009: 6055–6059
- **Weighted Sum-Rate Maximization using Weighted MMSE for MIMO-BC Beamforming Design** *IEEE International Conference on Communications (ICC 2009)*
Christensen, S. S., Agarwal, R., De Carvalho, E., Cioffi, J. M.
IEEE.2009: 2945–2950
- **A novel bit-level DS combining scheme for MIMO systems with HARQ**
Xia, J., Lv, T., Li, Y., Cioffi, J., M.
2009
- **Weighted sum-rate maximization using weighted MMSE for MIMO-BC beamforming design**
Christensen, S., S., Agarwal, R., Carvalho, E., Cioffi, J., M., Carvalho, E., De
2009
- **Optimal resource allocation in the OFDMA downlink with feedback of buffer state information**
Agarwal, R., Cioffi, J., M.
2009
- **A Centralized Multi-Level Water-Filling Algorithm for Dynamic Spectrum Management**
Zou, H., Chowdhery, A., Cioffi, J., M.
2009
- **Iterative spectrum shaping with opportunistic multiuser detection** *IEEE Transactions on Wireless Communications*
Zhang, R., Cioffi, J., M.
2009; 60 (6): 2679–2683
- **On the performance of compressed interference forwarding for uplink base station cooperation**
Grieger, M., Marsch, P., Fettweis, G., Cioffi, J., M.
2009
- **Greener copper with dynamic spectrum management**
Cioffi, J., M., Jagannathan, S., Lee, W., Zou, H., Chowdhery, A., Ginis, G.
2009
- **An anomaly-based system for parental control**
Cioffi, J., M., Pagliarecci, F., Spalazzi, L.
2009
- **Iterative spectrum shaping with opportunistic multiuser detection**
Zhang, R., Cioffi, J., M.
2009
- **Fundamental Power-Allocation for Cooperative Relay Networks**
Kwak, R., Cioffi, J., M.
2009
- **Exploiting Opportunistic Multiuser Detection in Decentralized Multiuser MIMO Systems**
Zhang, R., Cioffi, J., M.
2009
- **Transceiver Design for MIMO Wireless Systems Incorporating Hybrid ARQ** *IEEE COMMUNICATIONS MAGAZINE*
Lee, J., Lou, H., Toumpakaris, D., Jang, E. W., Cioffi, J. M.
2009; 47 (1): 32-40
- **Crystallized Rates Region of the Interference Channel via Correlated Equilibrium with Interference as Noise** *IEEE International Conference on Communications (ICC 2009)*

-
- Charafeddine, M., Han, Z., Paulraj, A., Cioffi, J.
IEEE.2009: 3322–3327
- **Asymptotic Equivalence Between the UML and the Extended SLN Symbol Timing Estimation on an Additive Colored Gaussian Noise Channel** *IEEE SIGNAL PROCESSING LETTERS*
Lee, D., Cioffi, J. M.
2009; 16 (1-3): 196-199
 - **Cooperative Strategy by Stackelberg Games under Energy Constraint in Multi-hop Relay Networks** *IEEE Global Telecommunications Conference (GLOBECOM 09)*
Kwon, H., Lee, H., Cioffi, J. M.
IEEE.2009: 3431–3436
 - **MISO Broadcast Channel with User-Cooperation and Limited Feedback** *IEEE International Symposium on Information Theory (ISIT 2009)*
Kwon, H., Cioffi, J. M.
IEEE.2009: 1694–1698
 - **A Minimax Regret Approach to Robust Beamforming** *70th IEEE Vehicular Technology Conference*
Byun, J., Mutapcic, A., Kim, S., Cioffi, J. M.
IEEE.2009: 1531–1536
 - **Buffer State Information: Two-Level Water-Filling for Fixed Rate Applications** *IEEE Global Telecommunications Conference (GLOBECOM 09)*
Majjigi, V., O'Neill, D., Cioffi, J.
IEEE.2009: 3443–3448
 - **Greener Copper with Dynamic Spectrum Management (Invited Paper)** *3rd International Conference on Access Networks (AccessNets 2008)*
Cioffi, J., Jagannathan, S., Lee, W., Zou, H., Chowdhery, A., Rhee, W., Ginis, G., Silverman, P.
SPRINGER-VERLAG BERLIN.2009: 62–77
 - **User Profiling: A Method for Limited Feedback in OFDMA Systems** *IEEE International Conference on Communications (ICC 2009)*
Majjigi, V., Agarwal, R., Cioffi, J.
IEEE.2009: 3999–4003
 - **Relaying Power Allocation with User-Cooperation for OFDM-based MISO Broadcast Channels** *IEEE Global Telecommunications Conference (GLOBECOM 09)*
Kwon, H., Je, H. W., Cioffi, J. M.
IEEE.2009: 3419–3424
 - **A Polite Cross-layer Protocol for Contention-based Home Power-line Communications** *IEEE International Conference on Communications (ICC 2009)*
Chowdhery, A., Jagannathan, S., Cioffi, J. M., Ouzzif, M.
IEEE.2009: 2666–2671
 - **Multi-user Joint Subchannel and Power Resource-Allocation for Powerline Relay Networks** *IEEE International Conference on Communications (ICC 2009)*
Zou, H., Chowdhery, A., Jagannathan, S., Cioffi, J. M., Le Masson, J.
IEEE.2009: 3124–3128
 - **Weighted Sum-Rate Maximization using Weighted MMSE for MIMO-BC Beamforming Design** *IEEE TRANSACTIONS ON WIRELESS COMMUNICATIONS*
Christensen, S. S., Agarwal, R., De Carvalho, E., Cioffi, J. M.
2008; 7 (12): 4792-4799
 - **Approaching MIMO-OFDM capacity with zero-forcing V-BLAST decoding and optimized power, rate, and antenna-mapping feedback** *IEEE Global Telecommunications Conference (GLOBECOM 06)*
Zhang, R., Cioffi, J. A.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2008: 5191–5203
 - **Capacity and fairness in multiuser diversity systems with opportunistic feedback** *IEEE COMMUNICATIONS LETTERS*
So, J., Cioffi, J. M.
2008; 12 (9): 648-650
 - **On the MIMO channel capacity for the Nakagami-m channel** *IEEE TRANSACTIONS ON INFORMATION THEORY*

-
- Fraidenraich, G., Leveque, O., Cioffi, J. M.
2008; 54 (8): 3752-3757
- **Achieving multi-user diversity gain using user-identity feedback** *40th Asilomar Conference on Signals, Systems and Computers*
Hwang, C., Cioffi, J. M.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2008: 2911-16
 - **Throughput maximization by utilizing multi-user diversity in slow-fading random access channels** *IEEE International Conference on Communications (ICC 2006)*
Hwang, C., Seong, K., Cioffi, J. M.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2008: 2526-35
 - **Antenna selection in space-time block coded systems: Performance analysis and low-complexity algorithm** *IEEE Global Telecommunications Conference (GLOBECOM 07)*
Chen, C., Sezgin, A., Cioffi, J. M., Paulraj, A.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2008: 3303-14
 - **Scheduling algorithms for time-varying downlink channels** *IEEE International Symposium on Information Theory*
Jang, E. W., Cho, Y., Choi, J., Cioffi, J. M.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2008: 2063-68
 - **Effects of non-homogeneous SINR estimation error statistics on scheduling performance in OFDM downlink systems** *IEEE TRANSACTIONS ON WIRELESS COMMUNICATIONS*
Choi, J., Cioffi, J. M.
2008; 7 (5): 1594-1602
 - **An FIR channel estimation filter with robustness to channel mismatch condition** *IEEE TRANSACTIONS ON BROADCASTING*
Choi, J., Han, S., Cioffi, J. M.
2008; 54 (1): 127-130
 - **On the use of hexagonal constellation for peak-to-average power ratio reduction of an OFDM signal** *IEEE TRANSACTIONS ON WIRELESS COMMUNICATIONS*
Han, S. H., Cioffi, J. M., Lee, J. H.
2008; 7 (3): 781-786
 - **The Optimal Power-Allocation for OFDMA Regenerative Relaying Downlink Systems** *9th IEEE Workshop on Signal Processing Advances in Wireless Communications*
Kwak, R., Cioffi, J. M.
IEEE.2008: 540-544
 - **Optimal Allocation of Feedback Bits for Downlink OFDMA Systems** *IEEE International Symposium on Information Theory*
Agarwal, R., Vannithamby, R., Cioffi, J. M.
IEEE.2008: 1686-1690
 - **Semidefinite Relaxation for Sum-rate Maximization on Gaussian Cognitive Multiple Access Channel** *68th IEEE Vehicular Technology Conference*
Han, S., Kim, H., Koumadi, K. M., Han, Y., Cioffi, J. M.
IEEE.2008: 1337-1341
 - **Semidefinite relaxation for sum-rate maximization on Gaussian cognitive multiple access channel**
Han, S., W., Kim, H., Koumadi, K., M., Han, Y., Cioffi, J., M.
2008
 - **Margin Optimization in Digital Subscriber Lines - part II: Level-2 Dynamic Spectrum Management (ICC best paper award)**
Jagannathan, S., Hwang, C., S., Cioffi, J., M.
2008
 - **Optimal allocation of feedback bits for downlink OFDMA systems**
Agarwal, R., Vannithamby, R., Cioffi, J., M.
2008
 - **On Multiuser Power Region of Fading Multiple-Access Channel with Multiple Antennas** *CoRR.abs/0808.3259*

-
- Zhang, R., Mohseni, M., Cioffi, J., M.
2008
- **Low complexity resource allocation with opportunistic feedback over downlink OFDMA networks** *IEEE Journal on Selected Areas in Communications*
Agarwal, R., Majjigi, V., R., Han, Z., Vannithamby, R., Cioffi, J., M.
2008; 26 (8): 1462–1472
 - **Per-tone Margin Optimization in Multicarrier Communication Systems**
Jagannathan, S., Hwang, C., S., Cioffi, J., M.
2008
 - **A Multicarrier El HDSL Tranceiver System with Coded Modulation** *European Transactions on Telecommunications*
Chow, P., S., Al-Dhahir, N., Cioffi, J., M., Bingham, J., A. C.
2008; 4 (3): 257–266
 - **Dynamic Allocation of Reserved Tones for PAR Reduction**
Malkin, M., Maghascar, T., Cioffi, J., M.
2008
 - **On the capacity of Gaussian Relay Channels** *CoRR abs/0906.0903*
Huang, S., L., Chen, M., Y., Chen, K., C., Cioffi, J., M.
2008
 - **The Subchannel-Allocation for OFDMA Relaying Downlink Systems with Total Power Constraint** *68th IEEE Vehicular Technology Conference*
Kwak, R., Cioffi, J. M.
IEEE.2008: 1685–1689
 - **Digital interference cancellation for DSL using information from the RS decoder** *EUROPEAN TRANSACTIONS ON TELECOMMUNICATIONS*
Toumpakaris, D., Cioffi, J. M., Gauthier, F., Zeddani, A.
2008; 19 (1): 53–60
 - **Outage Connectivity with Collaboration in Wireless Ad Hoc Networks** *9th IEEE Workshop on Signal Processing Advances in Wireless Communications*
Kwon, H., Cioffi, J. M.
IEEE.2008: 51–55
 - **Margin optimization in digital subscriber lines employing level-1 dynamic spectrum management** *IEEE International Conference on Communications (ICC 2008)*
Jagannathan, S., Hwang, C. S., Cioffi, J. A.
IEEE.2008: 441–446
 - **Optimal Constellation Distortion for PAR Reduction in OFDM Systems** *19th IEEE International Symposium on Personal, Indoor and Mobile Radio Communications*
Malkin, M., Krongold, B., Cioffi, J. M.
IEEE.2008: 582–586
 - **Flexible adaptive-modulation-and-coding tables for a wireless network** *IEEE International Conference on Communications (ICC 2008)*
Jang, E. W., Hwang, C., Cioffi, J. M.
IEEE.2008: 3378–3382
 - **Beamforming Design for the MIMO Downlink for Maximizing Weighted Sum-Rate** *International Symposium on Information Theory and Its Applications*
Agarwal, R., Cioffi, J. M.
IEEE.2008: 1009–1014
 - **Per-tone margin optimization in multi-carrier communication systems** *33rd IEEE International Conference on Acoustics, Speech and Signal Processing*
Jagannathan, S., Hwang, C. S., Cioffi, J. M.
IEEE.2008: 3057–3060
 - **Multi-user MISO Broadcast Channel with User-Cooperating Decoder** *68th IEEE Vehicular Technology Conference*
Kwon, H., Cioffi, J. M.
IEEE.2008: 1583–1587

- **Greener Copper with Dynamic Spectrum Management** *IEEE Global Telecommunications Conference (GLOBECOM 08)*
Cioffi, J. M., Zou, H., Chowdhery, A., Lee, W., Jagannathan, S.
IEEE.2008
- **Optimal Constellation Distortion for PAR Reduction in MIMO-OFDM Systems** *42nd Asilomar Conference on Signals, Systems and Computers*
Malkin, M., Zou, H., Malek, A., Cioffi, J. M., Krongold, B.
IEEE.2008: 943–947
- **Margin optimization in digital subscriber lines employing level-2 dynamic spectrum management** *IEEE International Conference on Communications (ICC 2008)*
Jagannathan, S., Hwang, C. S., Cioffi, J. M.
IEEE.2008: 435–440
- **Performance Analysis for OFDMA Downlink Relay Systems: Relay Gain and Fairness** *IEEE Global Telecommunications Conference (GLOBECOM 08)*
Kwak, R., Cioffi, J. M.
IEEE.2008
- **Distributed adaptive bit-loading for spectrum optimization in multi-user multicarrier systems** *IEEE International Conference on Communications (ICC 2008)*
Jagannathan, S., Cioffi, J. M.
IEEE.2008: 625–630
- **Transmitter precoding for insufficient-cyclic-prefix distortion in multicarrier systems** *67th IEEE Vehicular Technology Conference*
Malkin, M., Hwang, C., Cioffi, J. M.
IEEE.2008: 1142–1146
- **ON CAPACITY OF FREQUENCY SELECTIVE MULTIPATH CHANNELS WITH PATH CORRELATIONS** *9th IEEE Workshop on Signal Processing Advances in Wireless Communications*
Fraidenaich, G., Xu, Z., Rane, S., Cioffi, J.
IEEE.2008: 570–574
- **Multisuser OFDMA Resource Allocation Algorithms for In-Home Power-Line Communications** *IEEE Global Telecommunications Conference (GLOBECOM 08)*
Zou, H., Jagannathan, S., Cioffi, J. M.
IEEE.2008
- **Optimized Resource Allocation for Upstream Vectored DSL Systems With Zero-Forcing Generalized Decision Feedback Equalizer** *IEEE Global Telecommunications Conference (GLOBECOM 06)*
Chen, C., Seong, K., Zhang, R., Cioffi, J. M.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2007: 686–99
- **Approaching MIMO-OFDM capacity with per-antenna power and rate feedback** *IEEE International Conference on Communications (ICC 2006)*
Zhang, R., Liang, Y., Narasimhan, R., Cioffi, J. M.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2007: 1284–97
- **The capacity region of frequency-selective Gaussian interference channels under strong interference** *IEEE TRANSACTIONS ON COMMUNICATIONS*
Chung, S. T., Cioffi, J. M.
2007; 55 (9): 1812-1821
- **Binder MIMO channels** *IEEE TRANSACTIONS ON COMMUNICATIONS*
Lee, B., Cioffi, J. M., Jagannathan, S., Seong, K., Kim, Y., Mohseni, M., Brady, M. H.
2007; 55 (8): 1617-1628
- **Multichannel random access protocol for multihop cellular systems** *ELECTRONICS LETTERS*
Cho, S., Cioffi, J. M.
2007; 43 (15): 817-818
- **CuPON: The copper alternative to PON 100 Gb/s DSL networks** *IEEE COMMUNICATIONS MAGAZINE*
Cioffi, J. M., Jagannathan, S., Mohseni, M., Ginis, G.
2007; 45 (6): 132-139

- **On the MIMO channel capacity for the dual and asymptotic cases over Hoyt channels** *IEEE COMMUNICATIONS LETTERS*
Fraidenaich, G., Leveque, O., Cioffi, J. M.
2007; 11 (1): 31-33
- **On the MIMO channel capacity for the Nakagami-m channel** *GLOBECOM 2007: 2007 IEEE GLOBAL TELECOMMUNICATIONS CONFERENCE, VOLS 1-11*
Fraidenaich, G., Leveque, O., Cioffi, J. M.
2007: 3612-3616
- **Data-dependent superimposed training for noncoherent channels** *41st Asilomar Conference on Signals, Systems and Computers*
Yang, J., Williams, D. B., Cioffi, J. M.
IEEE.2007: 1010-1014
- **Downlink MIMO systems utilizing cooperation among base stations in a slow fading channel** *IEEE International Conference on Communications (ICC 2007)*
Tamaki, T., Seong, K., Cioffi, J. M.
IEEE.2007: 4728-4733
- **On the MIMO channel capacity for the nakagami-channel**
Fraidenaich, G., Leveque, O., Cioffi, J., M.
2007
- **Downlink MIMO systems using cooperation among base stations in a slow fading channel**
Tamaki, T., Seong, K., Cioffi, J., M.
2007
- **Mining copper and ether Technology leaders forum.** *IEEE Communications Magazine*
Cioffi, J., M.
2007; 45 (6)
- **Opportunistic Feedback in OFDMA Downlink**
Agarwal, R., Abhishek, V., Vannithamby, R., Cioffi, J., M.
2007
- **Data-dependent superimposed training for noncoherent channels**
Yang, J., Williams, D., B., Cioffi, J., M.
2007
- **Optimal delay region for cross-layer resource allocation**
Lee, W., Seong, K., Cioffi, J., M.
2007
- **Opportunistic Feedback Protocol for Achieving Sum-Capacity of the MIMO Broadcast Channel**
Agarwal, R., Hwang, C., S., Cioffi, J., M.
2007
- **Efficient scheduling for heterogeneous traffic in downlink** *66th IEEE Vehicular Technology Conference*
Agarwal, R., Majjigi, V., Vannithamby, R., Cioffi, J.
IEEE.2007: 1917-1921
- **Opportunistic power allocation for random beamforming in MISO broadcast channels** *IEEE International Conference on Communications (ICC 2007)*
Jang, E. W., Kwon, H., Cioffi, J. M.
IEEE.2007: 5468-5472
- **Randomized scheduler for temporally-correlated channels** *32nd IEEE International Conference on Acoustics, Speech and Signal Processing*
Hwang, C., Lee, W., Cioffi, J. M.
IEEE.2007: 21-24
- **Reduced-complexity simulation of the effect of non-stationary interference on DMT-based DSL systems** *AEU-INTERNATIONAL JOURNAL OF ELECTRONICS AND COMMUNICATIONS*
Toumpakaris, D., Yu, W., Cioffi, J. A., Gardan, D., Ouzzif, M.

2007; 61 (2): 95-103

- **Energy-efficient random-access scheduler for delay-limited traffic in wireless networks** *IEEE Global Telecommunications Conference (GLOBECOM 07)*
Lee, W., Hwang, C., Cioffi, J. M.
IEEE.2007: 5048–5052
- **A low-complexity algorithm for antenna selection in space-time block coded systems** *IEEE Global Telecommunications Conference (GLOBECOM 07)*
Chen, C., Sezgin, A., Cioffi, J. M., Paulraj, A.
IEEE.2007: 4221–4225
- **Resource allocation in uplink multi-carrier MIMO systems for low-complexity transceivers** *41st Asilomar Conference on Signals, Systems and Computers*
Jagannathan, S., Hwang, C. S., Cioffi, J. M.
IEEE.2007: 1705–1709
- **Efficient scheduling for heterogeneous services in OFDMA downlink** *IEEE Global Telecommunications Conference (GLOBECOM 07)*
Agarwal, R., Majjigi, V., Vannithamby, R., Cioffi, J. M.
IEEE.2007: 3235–3239
- **Using opportunistic CSMA/CA to achieve multi-user diversity in wireless LAN** *IEEE Global Telecommunications Conference (GLOBECOM 07)*
Hwang, C., Cioffi, J. M.
IEEE.2007: 4952–4956
- **Achieving sum-capacity of the MIMO BC with large transmit array using one-shot scalable feedback protocol** *65th IEEE Vehicular Technology Conference*
Agarwal, R., Cioffi, J.
IEEE.2007: 2038–2042
- **Multiuser discrete bit-loading for digital subscriber lines** *IEEE International Conference on Communications (ICC 2007)*
Yu, D. D., Seong, K., Cioffi, J. M.
IEEE.2007: 2755–2760
- **Resource-allocation for OFDMA multi-hop relaying downlink systems** *IEEE Global Telecommunications Conference (GLOBECOM 07)*
Kwak, R., Cioffi, J. M.
IEEE.2007: 3225–3229
- **Concatenation-assisted symbol-level combining scheme for MIMO systems with hybrid ARQ** *IEEE Global Telecommunications Conference (GLOBECOM 07)*
Jang, E. W., Lee, J., Song, L., Cioffi, J. M.
IEEE.2007: 3275–3279
- **A capacity-approaching algorithm for resource allocation in MIMO-OFDM multiple-access channel** *IEEE Global Telecommunications Conference (GLOBECOM 07)*
Chen, C., Zhang, R., Cioffi, J. A.
IEEE.2007: 2932–2936
- **Reducing insufficient-cyclic-prefix distortion using tone reservation** *IEEE Global Telecommunications Conference (GLOBECOM 07)*
Malkin, M., Hwang, C., Cioffi, J. M.
IEEE.2007: 2889–2893
- **Scheduling for fading multiple access channels with heterogeneous QoS constraints** *IEEE International Symposium on Information Theory*
Seong, K., Narasimhan, R., Cioffi, J. M.
IEEE.2007: 2966–2970
- **Multiple-access channels with distributed channel state information** *IEEE International Symposium on Information Theory*
Hwang, C., Malkin, M., El Garnal, A., Cioffi, J. M.
IEEE.2007: 1561–1565
- **Asymptotic capacity of orthogonal multi-level amplify-and-forward relay networks** *41st Asilomar Conference on Signals, Systems and Computers*
Yeh, S., Leveque, O., Cioffi, J. M.
IEEE.2007: 57–61
- **Opportunistic feedback protocol for achieving sum capacity of the MIMO broadcast channel** *66th IEEE Vehicular Technology Conference*

-
- Agarwal, R., Hwang, C., Cioffi, J.
IEEE.2007: 606–610
- **Relay with side information** *IEEE International Symposium on Information Theory*
Kwak, R., Lee, W., El Gamal, A., Cioffi, J. M.
IEEE.2007: 606–610
 - **Optimal combining schemes for MIMO systems with hybrid ARQ** *IEEE International Symposium on Information Theory*
Jang, E. W., Lee, J., Lou, H., Cioffi, J. M.
IEEE.2007: 2286–2290
 - **Scheduling for time-varying broadcast channels** *IEEE International Symposium on Information Theory*
Jang, E. W., Cho, Y., Choi, J., Cioffi, J. M.
IEEE.2007: 2956–2960
 - **Echo cancellation in DMT modems with frame-asynchronous operation** *IEEE TRANSACTIONS ON SIGNAL PROCESSING*
Pisoni, F., Bonaventura, M., Cioffi, J. M.
2007; 55 (1): 246-255
 - **Persistent resource allocation in OFDMA networks for real-time and non-real-time traffic** *41st Asilomar Conference on Signals, Systems and Computers*
Majigi, V., Agarwal, R., Vannithamby, R., Cioffi, J.
IEEE.2007: 280–284
 - **SNR analysis of OFDM systems in the presence of carrier frequency offset for fading channels** *IEEE Global Telecommunications Conference (GLOBECOM 04)*
Lee, J., Lou, H., Toumpakaris, D., Cioffi, J. M.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2006: 3360–64
 - **Optimal discrete bit loading for DMT-based DSL systems with equal-length loops** *IEEE International Conference on Communications (ICC)*
Lee, J., Chung, S. T., Cioffi, J. M.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2006: 1760–64
 - **PAR reduction of multicarrier signals using injected tone constellation** *IEICE TRANSACTIONS ON COMMUNICATIONS*
Chang, E., Kwon, H., Cioffi, J. M.
2006; E89B (10): 2936-2939
 - **Tone injection with hexagonal constellation for peak-to-average power ratio reduction in OFDM** *IEEE COMMUNICATIONS LETTERS*
Han, S. H., Cioffi, J. M., Lee, J. H.
2006; 10 (9): 646-648
 - **Optimized transmission for fading multiple-access and broadcast channels with multiple antennas** *IEEE JOURNAL ON SELECTED AREAS IN COMMUNICATIONS*
Mohseni, M., Zhang, R., Cioffi, J. M.
2006; 24 (8): 1627-1639
 - **Queue proportional scheduling via geometric programming in fading broadcast channels** *IEEE International Conference on Communications (ICC 2006)*
Seong, K., Narasimhan, R., Cioffi, J. M.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2006: 1593–1602
 - **Transmit optimization for MIMO-OFDM with delay-constrained and no-delay-constrained traffic** *IEEE International Conference on Acoustics, Speech, and Signal Processing*
Liang, Y., Zhang, R., Cioffi, J. M.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2006: 3190–99
 - **Multiuser bit loading for multicarrier systems** *IEEE Global Telecommunications Conference (GLOBECOM 02)*
Lee, J., Sonalkar, R. V., Cioffi, J. M.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2006: 1170–74
 - **Adaptive modulation and coding (AMC) for bit-interleaved coded OFDM (BIC-OFDM)** *IEEE International Conference on Communications (ICC 2004)*
Song, K., Ekbal, A., Chung, S. T., Cioffi, J. M.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2006: 1685–94

- **Subchannel grouping and statistical waterfilling for vector block-fading channels** *IEEE International Conference on Communications (ICC 2004)*
Liang, Y., Zhang, R., Cioffi, J. M.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2006: 1131–42
- **The worst-case interference in DSL systems employing dynamic spectrum management** *EURASIP JOURNAL ON APPLIED SIGNAL PROCESSING*
Brady, M. H., Cioffi, J. M.
2006
- **A low-complexity algorithm for antenna selection in space-time block coded systems** in *IEEE Transactions on Signal Processing*
Chen, C., Y., Sezgin, A., Cioffi, J., M., Paulraj, A.
2006; 56 (7): 4221–4225
- **Low complexity BICM-OFDM-based MIMO receiver using successive interference cancellation**
Kim, Y., Cioffi, J., M., Holt, K.
2006
- **Power region for fading multiple-access channel with multiple antennas** in *IEEE Journal on Selected Areas in Communications*
Zhang, R., Mohseni, M., Cioffi, J., M.
2006; 24 (8): 2709–2713
- **SUBF vs. MUBF in a Gaussian MIMO broadcast channel with partial Channel State Information** *31st IEEE International Conference on Acoustics, Speech and Signal Processing*
Kim, Y., Cioffi, J. M., Narasimhan, R.
IEEE.2006: 4443–4446
- **Fading broadcast channels with one-sided feedback** *40th Asilomar Conference on Signals, Systems and Computers*
Agarwal, R., Cioffi, J.
IEEE.2006: 498–500
- **Band-Preference Dynamic Spectrum Management in a DSL Environment** *IEEE Global Telecommunications Conference (GLOBECOM 06)*
Lee, W., Kim, Y., Brady, M. H., Cioffi, J. M.
IEEE.2006
- **Queue Proportional Scheduling in Gaussian Broadcast Channels** *IEEE International Conference on Communications (ICC 2006)*
Seong, K., Narasimhan, R., Cioffi, J. M.
IEEE.2006: 1647–1652
- **Power efficient Opportunistic p-persistent CSMA for Wireless Networks** *IEEE International Conference on Communications (ICC 2006)*
Hwang, C., Seong, K., Cioffi, J. M.
IEEE.2006: 1736–1741
- **Iterative Water-filling for Optimal Resource Allocation in OFDM Multiple-Access and Broadcast Channels** *IEEE Global Telecommunications Conference (GLOBECOM 06)*
Yu, D. D., Cioffi, J. M.
IEEE.2006
- **Scalable feedback protocol asymptotically achieving broadcast channel sum-capacity** *40th Asilomar Conference on Signals, Systems and Computers*
Hwang, C., Cioffi, J. M.
IEEE.2006: 191–195
- **Improved OSIC decoder for spatially multiplexed system** *IEEE International Conference on Communications (ICC 2006)*
Jang, E. W., Nam, S., Kim, J., Cioffi, J. M.
IEEE.2006: 2963–2968
- **Power region for fading multiple-access channel with multiple antennas** *IEEE International Symposium on Information Theory*
Zhang, R., Mohseni, M., Cioffi, J. M.
IEEE.2006: 2709–2713
- **Optimized Transmission for Upstream Vectored DSL Systems Using Zero-Forcing Generalized Decision-Feedback Equalizers** *IEEE Global Telecommunications Conference (GLOBECOM 06)*

-
- Chen, C., Seong, K., Zhang, R., Cioffi, J. M.
IEEE.2006
- **Constant-power waterfilling: Performance bound and low-complexity implementation** *IEEE International Conference on Communication*
Yu, W., Cioffi, J. M.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2006: 23–28
 - **Optimality of FDMA in Gaussian Multiple-Access Channels with Non-zero SNR Margin and Gap** *IEEE Global Telecommunications Conference (GLOBECOM 06)*
Jagannathan, S., Cioffi, J. M.
IEEE.2006
 - **Optimal Resource Allocation via Geometric Programming for OFDM Broadcast and Multiple Access Channels** *IEEE Global Telecommunications Conference (GLOBECOM 06)*
Seong, K., Yu, D. D., Kim, Y., Cioffi, J. M.
IEEE.2006
 - **Opportunistic p-persistent CSMA in wireless networks** *IEEE International Conference on Communications (ICC 2006)*
Hwang, C., Seong, K., Cioffi, J. M.
IEEE.2006: 183–188
 - **Approaching MIMO-OFDM Capacity with Per Antenna Power and Rate Feedback** *IEEE International Conference on Communications (ICC 2006)*
Zhang, R., Cioffi, J. M., Liang, Y.
IEEE.2006: 5348–5353
 - **On the distribution of SINR for the MMSE MIMO receiver and performance analysis** *IEEE TRANSACTIONS ON INFORMATION THEORY*
Li, P., Paul, D., Narasimhan, R., Cioffi, J.
2006; 52 (1): 271-286
 - **Throughput Optimization for Continuous Flat Fading MIMO Channels with Estimation Error** *IEEE Global Telecommunications Conference (GLOBECOM 06)*
Jang, E. W., Cho, Y., Cioffi, J. M.
IEEE.2006
 - **Cross-Layer Resource Allocation via Geometric Programming in Fading Broadcast Channels** *63rd IEEE Vehicular Technology Conference*
Seong, K., Narasimhan, R., Cioffi, J. M.
IEEE.2006: 1605–1609
 - **A proof of the converse for the capacity of Gaussian MIMO broadcast channels** *IEEE International Symposium on Information Theory*
Mohseni, M., Cioffi, J. M.
IEEE.2006: 881–885
 - **Approaching MIMO-OFDM Capacity with Closed-Loop V-BLAST** *IEEE Global Telecommunications Conference (GLOBECOM 06)*
Zhang, R., Cioffi, J. M.
IEEE.2006
 - **Spatially-correlated jamming in Gaussian multiple access and broadcast channels** *40th Annual Conference on Information Sciences and Systems (CISS)*
Brady, M. H., Mohseni, M., Cioffi, J. M.
IEEE.2006: 1635–1639
 - **Optimal resource allocation for OFDMA downlink systems** *IEEE International Symposium on Information Theory*
Seong, K., Mohseni, M., Cioffi, J. M.
IEEE.2006: 1394–1398
 - **SUBF vs. MUBF in a Gaussian MIMO broadcast channel with partial channel state information** *31st IEEE International Conference on Acoustics, Speech and Signal Processing*
Kim, Y., Cioffi, J. M., Narasimhan, R.
IEEE.2006: 773-?
 - **Trellis and convolutional precoding for transmitter-based interference pre-subtraction** *IEEE TRANSACTIONS ON COMMUNICATIONS*
Yu, W., Varodayan, D. P., Cioffi, J. M.

2005; 53 (7): 1220-1230

- **Iterative power control for imperfect successive interference cancellation** *IEEE TRANSACTIONS ON WIRELESS COMMUNICATIONS*
Agrawal, A., Andrews, J. G., Cioffi, J. M., Meng, T.
2005; 4 (3): 878-884
- **On task mapping optimization for parallel decoding of low-density parity-check codes on message-passing architectures** *PARALLEL COMPUTING*
Al-Rawi, G., Cioffi, J., Horowitz, M.
2005; 31 (5): 462-490
- **A multi-user power control algorithm for digital subscriber lines** *IEEE COMMUNICATIONS LETTERS*
Lee, J. W., Sonalkar, R. V., Cioffi, J. M.
2005; 9 (3): 193-195
- **Distributed transmit beamforming in cellular networks - A convex optimization perspective** *IEEE International Conference on Communications (ICC 2005)*
Ekbal, A., Cioffi, J. M.
IEEE.2005: 2690-2694
- **Finite-SNR diversity-multiplexing tradeoff of space-time codes** *IEEE International Conference on Communications (ICC 2005)*
Narasimhan, R., Ekbal, A., Cioffi, J. M.
IEEE.2005: 458-462
- **Deriving new quasi-orthogonal space-time block codes and relaxed designing viewpoints with full transmit diversity** *IEEE International Conference on Communications (ICC 2005)*
Chen, M. Y., Chen, C. Y., Li, H. C., Pei, S. C., Cioffi, J. M.
IEEE.2005: 2922-2926
- **Deriving new quasi-orthogonal space-time block codes and relaxed designing viewpoints with full transmit diversity**
Chen, M., Y., Chen, C., Y., Li, H., C., Pei, S., C., Cioffi, J., M.
2005
- **Worst-case interference in DSL systems employing Dynamic Spectrum Management** *in Eurasip Journal on Applied Signal Processing*
Brady, M., H., Cioffi, J., M.
2005; 2006: 1-11
- **Finite-SNR diversity-multiplexing tradeoff of space-time codes**
Narasimhan, R., Ekbal, A., Cioffi, J., M.
2005
- **MIMO broadcasting with delay-constrained and no-delay-constrained services** *IEEE International Conference on Communications (ICC 2005)*
Zhang, R., Cioffi, J. M., Liang, Y. C.
IEEE.2005: 783-787
- **Single user random beamforming in Gaussian MIMO broadcast channels** *IEEE International Conference on Communications (ICC 2005)*
Kim, Y. J., Song, K. B., Narasimhan, R., Cioffi, J. M.
IEEE.2005: 2695-2699
- **Effect of wireless channel process on queuing delay - Approximate analysis using peakedness function** *IEEE International Conference on Communications (ICC 2005)*
Ekbal, A., Cioffi, J. M.
IEEE.2005: 468-472
- **Sub-optimal throughput maximization schemes for Gaussian vector broadcast channels** *IEEE International Conference on Communications (ICC 2005)*
Mohseni, M., Cioffi, J. M.
IEEE.2005: 709-714
- **Throughput comparison of wireless downlink transmission schemes with multiple antennas** *IEEE International Conference on Communications (ICC 2005)*
Zhang, R., Cioffi, J. M., Liang, Y. C.
IEEE.2005: 2700-2704
- **Transmit power optimization for Gaussian vector broadcast channels** *IEEE International Conference on Communications (ICC 2005)*

-
- Oh, J., Kim, S. J., Narasimhan, R., Cioffi, J. M.
IEEE.2005: 2712–2716
- **Full-diversity quasi-orthogonal space-time block codes for M-PSK modulations** *IEEE Global Telecommunications Conference (GLOBECOM 05)*
Chen, C. Y., Chen, M. Y., Cioffi, J. M.
IEEE.2005: 3022–3026
 - **Reduced-delay protection of DSL systems against nonstationary disturbances** *IEEE Global Communications Conference*
Toumpakaris, D., Cioffi, J. M., Gardan, D.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2004: 1927–38
 - **Multuser transmit optimization for multicarrier broadcast channels: Asymptotic FDMA capacity region and algorithms** *IEEE International Conference on Communications (ICC 2001)*
Hoo, L. M., Halder, B., Tellado, J., Cioffi, J. A.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2004: 922–30
 - **Optimum bandwidth partitioning with analog-to-digital converter constraints** *IEEE TRANSACTIONS ON COMMUNICATIONS*
Ginis, G., Cioffi, J. M.
2004; 52 (6): 1010-1018
 - **Optimum linear joint transmit-receive processing for MIMO channels with QoS constraints** *36th Asilomar Conference on Signals, Systems and Computers*
Palomar, D. P., Lagunas, M. A., Cioffi, J. M.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2004: 1179–97
 - **Approaching the MIMO capacity with a low-rate feedback channel in V-BLAST** *EURASIP JOURNAL ON APPLIED SIGNAL PROCESSING*
Chung, S. T., Lozano, A., Huang, H. C., Sutivong, A., Cioffi, J. M.
2004; 2004 (5): 762-771
 - **Adaptive modulation and coding (AMC) for bit-interleaved coded OFDM (BIC-OFDM)** *IEEE International Conference on Communications (ICC 2004)*
Song, K. B., Ekbal, A., Chung, S. T., Cioffi, J. A.
IEEE.2004: 3197–3201
 - **Effect of carrier frequency offset on time-domain differential demodulation in OFDM systems** *60th IEEE Vehicular Technology Conference*
Lee, J., Toumpakaris, D., Lou, H. L., Cioffi, J. M.
IEEE.2004: 568–572
 - **Effect of carrier frequency offset on OFDM systems for multipath fading channels** *IEEE Global Telecommunications Conference (GLOBECOM 04)*
Lee, J., Lou, H. L., Toumpakaris, D., Cioffi, J. M.
IEEE.2004: 3721–3725
 - **A blind frequency tracking algorithm for OFDM transmission over frequency selective channels** *60th IEEE Vehicular Technology Conference*
Lee, J., Lou, H. L., Toumpakaris, D., Cioffi, J. M.
IEEE.2004: 578–582
 - **Stochastic handling of tolerance in robust magnets design** *IEEE Transactions on Magnetics*
Cioffi, J., M., Formisano, A., Martone, R.
2004; 40 (2): 1252–1255
 - **Effect of carrier frequency offset on time-domain differential demodulation in OFDM systems**
Lee, J., Toumpakaris, D., Lou, H., L., Cioffi, J., M.
2004
 - **Effect of carrier frequency offset on OFDM systems for multipath fading channels**
Lee, J., Lou, H., L., Toumpakaris, D., Cioffi, J., M.
2004
 - **A blind frequency tracking algorithm for OFDM transmission over frequency selective channels**
Lee, J., Lou, H., L., Toumpakaris, D., Cioffi, J., M.
2004

- **Dynamic spectrum management of multi-user communications over power distribution networks**
Guo, J., B., Cioffi, J., M.
2004
- **Statistical power allocation strategy for vector block-fading channels**
Liang, Y., C., Zhang, R., Cioffi, J., M.
2004
- **Dynamic Spectrum Management (Winner conference best paper award)**
Cioffi, J., M., Mohseni, M.
2004
- **An outer code-assisted RFI cancellation method for DMT-DSL systems** *IEEE Global Telecommunications Conference (GLOBECOM 04)*
Toumpakaris, D., Lee, J., Ekbal, A., Cioffi, J. M., Gauthier, F., Zeddiam, A.
IEEE.2004: 2562–2567
- **Optimum power allocation and control for OFDM in multiple access channels** *60th IEEE Vehicular Technology Conference*
Oh, J., Kim, S. J., Cioffi, J. M.
IEEE.2004: 774–778
- **A novel decision feedback equalizer design based on generalized space translation** *38th Asilomar Conference on Signals, Systems and Computers*
Chen, C. Y., Heneghan, C., Cioffi, J. M.
IEEE.2004: 727–731
- **Multi-target channel inversion power control for block-fading channels with multiple antennas** *IEEE International Conference on Communications (ICC 2004)*
Zhang, R., Liang, Y. C., Cioffi, J. M.
IEEE.2004: 593–597
- **Iterative water-filling for Gaussian vector multiple-access channels** *IEEE International Symposium on Information Theory*
Yu, W., Rhee, W. J., Boyd, S., Cioffi, J. M.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2004: 145–52
- **QoS-constrained physical layer optimization for correlated flat-fading wireless channels** *IEEE International Conference on Communications (ICC 2004)*
Ekbal, A., Song, K. B., Cioffi, J. M.
IEEE.2004: 4211–4215
- **The optimality of beamforming in uplink multiuser wireless systems** *IEEE Globecom 2001 Conference*
Rhee, W., Yu, W., Cioffi, J. M.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2004: 86–96
- **Rate-compatible punctured convolutionally (RCPC) space-frequency bit-interleaved coded modulation (SF-BICM)** *IEEE International Conference on Communications (ICC 2004)*
Song, K. B., Hwang, C. S., Cioffi, J. M.
IEEE.2004: 3284–3288
- **Sub-band rate and power control for wireless OFDM systems** *60th IEEE Vehicular Technology Conference*
Oh, J., Cioffi, J. A.
IEEE.2004: 2011–2014
- **Channel estimation for multicarrier multiple input single output systems using the EM algorithm** *IEEE TRANSACTIONS ON SIGNAL PROCESSING*
Aldana, C. H., De Carvalho, E., Cioffi, J. M.
2003; 51 (12): 3280-3292
- **Rate and power control in a two-user multicarrier channel with no coordination: The optimal scheme versus a suboptimal method** *56th IEEE Vehicular Technology Conference*
Chung, S. T., Cioffi, J. M.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2003: 1768–72
- **On the capacity of multiuser wireless channels with multiple antennas** *35th Asilomar Conference*

-
- Rhee, W., Cioffi, J. M.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2003: 2580–95
- **Performance of asymmetric digital subscriber lines in an impulse noise environment** *IEEE TRANSACTIONS ON COMMUNICATIONS*
Yu, W., Toumpakaris, D., Cioffi, J. M., Gardan, D., Gauthier, F.
2003; 51 (10): 1653-1657
 - **Joint Tx-Rx beamforming design for multicarrier MIMO channels: A unified framework for convex optimization** *40th Annual Allerton Conference on Communication, Control and Computing*
Palomar, D. P., Cioffi, J. M., Lagunas, M. A.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2003: 2381–2401
 - **Exploiting error-control coding and cyclic-prefix in channel estimation for coded OFDM systems** *IEEE COMMUNICATIONS LETTERS*
Al-Rawi, G. A., Al-Naffouri, T. Y., Bahai, A., Cioffi, J.
2003; 7 (8): 388-390
 - **Uniform power allocation in MIMO channels: A game-theoretic approach** *IEEE International Symposium on Information Theory*
Palomar, D. P., Cioffi, J. M., Lagunas, M. A.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2003: 1707–27
 - **Maximum-likelihood detection of nonlinearly distorted multicarrier symbols by iterative decoding** *IEEE TRANSACTIONS ON COMMUNICATIONS*
Tellado, J., Hoo, L. M., Cioffi, J. M.
2003; 51 (2): 218-228
 - **Outage capacity and cutoff rate of bit-interleaved coded OFDM under quasi-static frequency selective fading** *IEEE Global Telecommunications Conference (GLOBECOM 03)*
Ekbal, A., Song, K. B., Cioffi, J. M.
IEEE.2003: 1054–1058
 - **Sub-channel grouping and statistical water-filling for MIMO-OFDM systems** *37th Asilomar Conference on Signals, Systems and Computers*
Liang, Y. C., Zhang, R., Cioffi, J. M.
IEEE.2003: 997–1001
 - **Combining transmit beamforming, space-time block coding and delay spread reduction** *14th IEEE International Symposium on Personal, Indoor and Mobile Radio Communications*
Liang, Y. C., Cioffi, J. M.
PUBLISHING HOUSE ELECTRONICS INDUSTRY.2003: 105–109
 - **Convex optimization theory applied to joint beamforming design in multicarrier MIMO channels** *IEEE International Conference on Communications (ICC)*
Palomar, D. P., Cioffi, J. M., Lagunas, M. A., Iserte, A. P.
IEEE.2003: 2974–2978
 - **Uniform power allocation in MIMO channels: A game-theoretic approach** *IEEE International Symposium on Information Theory*
Palomar, D. P., Cioffi, J. M., Lagunas, M. A.
IEEE.2003: 271–271
 - **Uniform power allocation in mimo channels: a game-theoretic approach**
Palomar, D., P., Cioffi, J., M., Lagunas, M., A.
2003
 - **Sub-channel grouping and statistical water-filling for MIMO-OFDM systems**
Liang, Y., C., Zhang, R., Cioffi, J., M.
2003
 - **Adaptive modulation and coding for bit-interleaved coded OFDM**
Song, K., B., Ekbal, A., Chung, S., T., Cioffi, J., M.
2003
 - **Convex optimization theory applied to joint beamforming design in multicarrier MIMO channels**
Palomar, D., P., Cioffi, J., M., Lagunas, M., A., Iserte, A., P.
2003

- **Outage capacity and cutoff rate of bit-interleaved coded OFDM under quasistatic frequency selective fading**
Ekbal, A., Song, K., B., Cioffi, J., M.
2003
- **Combining transmit beamforming, space-time block coding and delay spread reduction**
Liang, Y., C., Cioffi, J., M.
2003
- **Rate and power control in a two-user multicarrier channel with no coordination: the optimal scheme vs. suboptimal methods** *IEEE Transactions on Communications*
Chung, S., T., Cioffi, J., M.
2003; 51 (11): 1768–1772
- **An iterative receiver for coded OFDM systems over time-varying wireless channels** *IEEE International Conference on Communications (ICC)*
Al-Rawi, G. A., Al-Naffouri, T. Y., Bahai, A., Cioffi, J.
IEEE.2003: 3371–3376
- **A square distance-based byte-erasure method for reduced-delay protection of DSL systems from non-stationary interference** *IEEE Global Telecommunications Conference (GLOBECOM 03)*
Toumpakaris, D., Cioffi, J. M., Gardan, D., Ouzzif, M.
IEEE.2003: 2114–2119
- **Comparison of QAM-VDSL and DMT-VDSL in an Impulse Noise environment** *IEEE Global Telecommunications Conference (GLOBECOM 03)*
Ouzzif, M., Toumpakaris, D., Cioffi, J., Zeddani, A.
IEEE.2003: 2141–2145
- **A simple byte-erasure method for improved impulse immunity in DSO** *IEEE International Conference on Communications (ICC)*
Toumpakaris, D., Yu, W., Cioffi, J. A., Gardan, D., Ouzzif, M.
IEEE.2003: 2426–2430
- **A byte-erasure method for improved impulse immunity in DSL systems using soft information from an inner code** *IEEE International Conference on Communications (ICC)*
Toumpakaris, D., Yu, W., Cioffi, J. M., Gardan, D., Ouzzif, M.
IEEE.2003: 2431–2435
- **The optimal power allocation for equal-length twisted-pair channels** *IEEE International Conference on Communications (ICC)*
Lee, J., Cioffi, J. M.
IEEE.2003: 2862–2866
- **A game-theoretic approach to power allocation in frequency-selective Gaussian interference channels** *IEEE International Symposium on Information Theory*
Chung, S. T., Kim, S. J., Lee, J., Cioffi, J. M.
IEEE.2003: 316–316
- **The capacity region of frequency-selective Gaussian interference channels under strong interference** *IEEE International Conference on Communications (ICC)*
Chung, S. T., Cioffi, J. M.
IEEE.2003: 2753–2757
- **Adaptive antennas for space-time codes in outdoor channels** *49th IEEE Vehicular Technology Conference (VTC 99)*
Negi, R., Tehrani, A. M., Cioffi, J. M.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2002: 1918–25
- **Performance of 60 GHz Virtual Cellular Networks using multiple receiving antennas** *4th International Symposium on Wireless Personal Multimedia Communications*
Flament, M., Svensson, A., Cioffi, J. M.
SPRINGER.2002: 15–29
- **Dynamic spectrum management for next-generation DSL systems** *IEEE COMMUNICATIONS MAGAZINE*
Song, K. B., Chung, S. T., Ginis, G., Cioffi, J. M.
2002; 40 (10): 101-109

- **Blind OFDM symbol synchronization in ISI channels** *IEEE Global Telecommunications Conference (GLOBECOM 98)*
Negi, R., Cioffi, J. M.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2002: 1525–34
- **Delay-constrained capacity with causal feedback** *IEEE International Conference on Communications*
Negi, R., Cioffi, J. M.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2002: 2478–94
- **Distributed multiuser power control for digital subscriber lines** *IEEE JOURNAL ON SELECTED AREAS IN COMMUNICATIONS*
Yu, W., Ginis, G., Cioffi, J. M.
2002; 20 (5): 1105-1115
- **Near-end crosstalk mitigation in ADSL systems** *IEEE JOURNAL ON SELECTED AREAS IN COMMUNICATIONS*
Zeng, C. H., Cioffi, J. M.
2002; 20 (5): 949-958
- **Profile detection in multiuser digital subscriber line systems** *IEEE JOURNAL ON SELECTED AREAS IN COMMUNICATIONS*
Salvekar, A. A., Louveaux, J., Aldana, C., Fang, J. L., de Carvalho, E., Cioffi, J. M.
2002; 20 (5): 1116-1125
- **Autonomous synchronization of a DMT-VDSL system in unbundled networks** *IEEE JOURNAL ON SELECTED AREAS IN COMMUNICATIONS*
Nilsson, R., Sjoberg, F., Isaksson, M., Cioffi, J. M., Wilson, S. K.
2002; 20 (5): 1055-1063
- **Vectored transmission for digital subscriber line systems** *IEEE JOURNAL ON SELECTED AREAS IN COMMUNICATIONS*
Ginis, G., Cioffi, J. M.
2002; 20 (5): 1085-1104
- **Guest Editorial - Multiuser detection techniques with application to wired and wireless communications systems II** *IEEE JOURNAL ON SELECTED AREAS IN COMMUNICATIONS*
Cherubini, G., Cioffi, J. M., Duel-Hallen, A., Poor, H. V., Tranter, W. H.
2002; 20 (2): 233-236
- **Multiuser soft interference canceler via iterative decoding for DSL applications** *IEEE JOURNAL ON SELECTED AREAS IN COMMUNICATIONS*
Cheong, K. W., Choi, W. J., Cioffi, J. M.
2002; 20 (2): 363-371
- **Transmit optimization for frequency division duplex multi-antenna systems** *56th IEEE Vehicular Technology Conference*
Agrawal, A., Cioffi, J.
IEEE.2002: 1968–1972
- **Optimum joint transmit-receive linear processing for vectored DSL transmission with QoS requirements** *36th Asilomar Conference on Signals, Systems and Computers*
Palomar, D. P., Lagunas, M. A., Cioffi, J. M.
IEEE.2002: 388–392
- **Blind adaptive MIMO decision feedback equalization using givens rotations** *IEEE International Conference on Communications*
Ginis, G., Bar-Ness, Y., Cioffi, J. M.
IEEE.2002: 59–63
- **Power control for successive interference cancellation with imperfect cancellation** *IEEE International Conference on Communications*
Agrawal, A., Andrews, J., Cioffi, J., Meng, T.
IEEE.2002: 356–360
- **Channel diagonalization through orthogonal space-time coding** *IEEE International Conference on Communications*
Agrawal, A., Ginis, G., Cioffi, J. M.
IEEE.2002: 1621–1624
- **Blind adaptive MIMO decision feedback equalization using givens rotations**
Ginis, G., Bar-Ness, Y., Cioffi, J., M.

2002

- **Power control for successive interference cancellation with imperfect cancellation**
Agrawal, A., Andrews, J.
2002
- **Optimum joint transmit-receive linear processing for vectored DSL transmission with QoS requirements**
Palomar, D., P., Lagunas, M., A., Cioffi, J., M.
2002
- **Multi-user constant-energy bit loading for M-PSK-modulated orthogonal frequency division multiplexing**
Armada, A., G., Cioffi, J., M.
2002
- **Channel diagonalization through orthogonal space-time coding**
Agrawal, A., Ginis, G., Cioffi, J., M.
2002
- **Guest editorial: Multiuser detection techniques with application to wired and wireless communications systems II** *IEEE Journal on Selected Areas in Communications*
Cherubini, G., Cioffi, J., M., Duel-Hallen, A., Poor, H., V, Tranter, W., H.
2002; 20 (2): 233–236
- **Blind OFDM Symbol Synchronization in ISI Channels** *IEEE Transactions on Communications*
Negi, R., Cioffi, J., M.
2002; 50 (9): 1525–1534
- **Simplified decoding for orthogonally concatenated coded modulation and parity-check-code**
Li, H., B., Cioffi, J., M.
2002
- **FDMA-based multiuser transmit optimization for broadcast channels**
Hoo, L., M. C., Tellado, J., Cioffi, J., M.
2002
- **Broadband: Bringing home the bits** in *Computer Communication Review*
Jayant, N., Chiddix, J., A., Cioffi, J., M., Clark, D., D., Green, P., Kahn, K.
2002; 32 (2): 5–29
- **Frame synchronization for multiuser digital subscriber line systems** *IEEE Global Telecommunications Conference (GLOBECOM 02)*
Louveaux, J., Salvekar, A. A., Cioffi, J.
IEEE.2002: 264–268
- **Exploiting error-control coding and cyclic-prefix in channel estimation for coded OFDM systems** *IEEE Global Telecommunications Conference (GLOBECOM 02)*
Al-Rawi, G., Al-Naffouri, T., Bahai, A., Cioffi, J.
IEEE.2002: 1152–1156
- **Rate and power control in a two-user multicarrier channel with no coordination: The optimal scheme vs. suboptimal methods** *56th IEEE Vehicular Technology Conference*
Chung, S. T., Cioffi, J. M.
IEEE.2002: 1744–1748
- **FDMA capacity of Gaussian multiple-access channels with ISI** *IEEE International Conference on Communications*
Yu, W., Cioffi, J. M.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2002: 102–11
- **A simple iterative power control scheme for successive interference cancellation** *IEEE 7th Symposium on Spread Spectrum Techniques and Applications*
Andrews, J., Agrawal, A., Meng, T., Cioffi, J.
IEEE.2002: 761–765

- **Sum capacity of a Gaussian vector broadcast channel** *IEEE International Symposium on Information Theory*
Yu, W., Cioffi, J. M.
IEEE.2002: 498–498
- **A multi-user rate and power control algorithm for VDSL** *IEEE Global Telecommunications Conference (GLOBECOM 02)*
Lee, J., Sonalkar, R. V., Cioffi, J. M.
IEEE.2002: 1264–1268
- **Multi-user discrete bit-loading for DMT-based DSL systems** *IEEE Global Telecommunications Conference (GLOBECOM 02)*
Lee, J., Sonalkar, R. V., Cioffi, J. M.
IEEE.2002: 1259–1263
- **On the relation between V-BLAST and the GDFE** *IEEE COMMUNICATIONS LETTERS*
Ginis, G., Cioffi, J. M.
2001; 5 (9): 364-366
- **Constellation labeling for linear encoders** *IEEE International Conference on Communications*
Wesel, R. D., Liu, X. T., Cioffi, J. M., Komninakis, C.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2001: 2417–31
- **Crosstalk identification in xDSL systems** *IEEE JOURNAL ON SELECTED AREAS IN COMMUNICATIONS*
Zeng, C. H., Aldana, C., Salvekar, A. A., Cioffi, J. A.
2001; 19 (8): 1488-1496
- **Low-complexity iterative decoding with decision-aided equalization for magnetic recording channels** *IEEE Global Communications Conference (GLOBECOM 99)*
Wu, Z. N., Cioffi, J. M.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2001: 699–708
- **Optimal power control in multiple access fading channels with multiple antennas** *IEEE International Conference on Communications*
Yu, W., Rhee, W., Cioffi, J. M.
IEEE.2001: 575–579
- **Crosstalk cancellation in ADSL systems** *IEEE Global Telecommunications Conference (GLOBECOM 01)*
Zeng, C. H., Cioffi, J. M.
IEEE.2001: 344–348
- **Optimizing the mapping of low-density parity check codes on parallel decoding architectures** *2nd International Conference on Information Technology - Coding and Computing (ITCC 2001)*
Al-Rawi, G., Cioffi, J., Horowitz, M.
IEEE COMPUTER SOC.2001: 578–586
- **Optimizing iterative decoding of Low-density parity check codes on programmable pipelined parallel architectures** *IEEE Global Telecommunications Conference (GLOBECOM 01)*
Al-Rawi, G., Cioffi, J., Motwani, R., Horowitz, M.
IEEE.2001: 3012–3018
- **Self-synchronizing a DMT-based VDSL system** *IEEE International Conference on Communications*
Nilsson, R., Sjoberg, F., Isaksson, M., Cioffi, J. M., Wilson, S. K.
IEEE.2001: 1249–1253
- **Crosstalk profile detection for use in multiuser detection** *IEEE International Conference on Communications*
Salvekar, A. A., Aldana, C., De Carvalho, E., Cioffi, J.
IEEE.2001: 2171–2175
- **On the convergence of the generalized DFE to the MMSE-DFE** *IEEE Global Telecommunications Conference (GLOBECOM 01)*
Ginis, G., Cioffi, J. A.
IEEE.2001: 1327–1335
- **Optimal water-filling algorithms for a Gaussian multiaccess channel with intersymbol interference** *IEEE International Conference on Communications*

-
- Zeng, C. H., Hoo, L. M., Cioffi, J. M.
IEEE.2001: 2421–2427
- **A highly efficient domain-programmable parallel architecture for iterative LDPC decoding** *2nd International Conference on Information Technology - Coding and Computing (ITCC 2001)*
Al-Rawi, G., Cioffi, J.
IEEE COMPUTER SOC.2001: 569–577
 - **On the asymptotic optimality of beam-forming in multi-antenna Gaussian multiple access channels** *IEEE Global Telecommunications Conference (GLOBECOM 01)*
Rhee, W. J., Cioffi, J. M.
IEEE.2001: 891–895
 - **Channel tracking for multiple input, single output systems using EM algorithm** *IEEE International Conference on Communications*
Aldana, C. H., Cioffi, J.
IEEE.2001: 586–590
 - **Optimal water-filling algorithms for a Gaussian multiaccess channel with intersymbol interference**
Zeng, C., Hoo, L., M. C., Cioffi, J., M.
2001
 - **On the asymptotic optimality of beam-forming in multi-antenna Gaussian multiple access channels**
Rhee, W., Cioffi, J., M.
2001
 - **Channel tracking for multiple input, single output systems using EM algorithm**
Aldana, C., H., Cioffi, J., M.
2001
 - **Enhanced block coded modulation using iterative decoding based on parity check codes**
Li, H., B., Cioffi, J., M.
2001
 - **Crosstalk cancellation in ADSL systems**
Zeng, C., Cioffi, J., M.
2001
 - **Optimizing the mapping of low-density parity check codes on parallel decoding architectures**
Al-Rawi, G., Cioffi, J., M., Horowitz, M.
2001
 - **A highly efficient domain-programmable parallel architecture for iterative LDPC decoding**
Al-Rawi, G., Cioffi, J., M.
2001
 - **Low-complexity iterative decoding with decision-aided equalization for magnetic recording channels** *IEEE Journal on Selected Areas in Communications*
Wu, Z., N., Cioffi, J., M.
2001; 19 (4): 699–708
 - **Performance of the adaptive rate MQAM with on/off power control** *IEEE Communications Letters*
Lim, C., H., Cioffi, J., M.
2001; 5 (1): 16–18
 - **On the convergence of the generalized DFE to the MMSE-DFE**
Ginis, G., Cioffi, J., M.
2001
 - **Constellation labeling for linear encoders** *IEEE Transactions on Information Theory*
Wesel, R., D., Liu, X., Cioffi, J., M., Komminakis, C.
2001; 47 (6): 2417–2431

- **Vectored-DMT: A FEXT canceling modulation scheme for coordinating users**
Ginis, G., Cioffi, J. M.
2001
- **Self-synchronizing a DMT-based VDSL system**
Nilsson, R., Sjöberg, F., Isaksson, M., Cioffi, J. M., Wilson, S., K.
2001
- **Optimizing iterative decoding of low-density parity check codes on programmable pipelined parallel architectures**
Al-Rawi, G., Cioffi, J. M., Motwani, R., Horowitz, M.
2001
- **Crosstalk profile detection for use in multiuser detection**
Salvekar, A. A., Aldana, C., H., de Carvalho, E., Cioffi, J. M.
2001
- **Peak-to-average power ratio reduction for block transmission systems in the presence of transmit filtering** *IEEE International Conference on Communications*
Salvekar, A. A., Aldana, C., Tellado, J., Cioffi, J.
IEEE.2001: 175–178
- **An adaptive multiuser power control algorithm for VDSL** *IEEE Global Telecommunications Conference (GLOBECOM 01)*
Yu, W., Ginis, G., Cioffi, J. M.
IEEE.2001: 394–398
- **Trellis precoding for the broadcast channel** *IEEE Global Telecommunications Conference (GLOBECOM 01)*
Yu, W., Cioffi, J. M.
IEEE.2001: 1344–1348
- **On constant power water-filling** *IEEE International Conference on Communications*
Yu, W., Cioffi, J. M.
IEEE.2001: 1665–1669
- **Asymptotic FDMA capacity region for broadcast channels with ISI** *IEEE International Conference on Communications*
Hoo, L. M., Halder, B., Tellado, J., Cioffi, J. M.
IEEE.2001: 1648–1653
- **Ergodic capacity of multi-antenna Gaussian multiple-access channels** *35th Asilomar Conference on Signals, Systems and Computers*
Rhee, W., Cioffi, J. M.
IEEE.2001: 507–512
- **Very high-speed digital subscriber line** *IEEE COMMUNICATIONS MAGAZINE*
Cioffi, J. M., Olcer, S.
2000; 38 (5): 62-?
- **Filter bank modulation techniques for very high-speed digital subscriber lines** *IEEE COMMUNICATIONS MAGAZINE*
Cherubini, G., Eleftheriou, E., Olcer, S., Cioffi, J. M.
2000; 38 (5): 98-104
- **An adaptive channel estimation scheme for DS-CDMA systems** *52nd IEEE Vehicular Technology Conference (VTC 2000)*
Oh, H. J., Cioffi, J. M.
IEEE.2000: 2839–2843
- **On the impact of channel estimation for multiple antenna diversity reception in mobile OFDM systems** *34th Asilomar Conference on Signals, Systems, and Computers*
Hutter, A. A., De Carvalho, E., Cioffi, J. M.
IEEE.2000: 1820–1824
- **Frequency selective next cancellation** *IEEE International Conference on Acoustics, Speech, and Signal Processing*
Koo, J. M., Kim, B. M., Lee, H. S., Cioffi, J.

IEEE.2000: 2841–2844

- **Multuser detection for vector multiple access channels using generalized decision feedback equalization** *5th International Conference on Signal Processing*
Yu, W., Cioffi, J. M.
PUBLISHING HOUSE ELECTRONICS INDUSTRY.2000: 1771–1777
- **Cramer-Rao bounds for blind multichannel estimation** *IEEE Global Telecommunications Conference (GLOBECOM 00)*
De Carvalho, E., Cioffi, J., Slock, D.
IEEE.2000: 1036–1040
- **Competitive equilibrium in the Gaussian interference channel** *IEEE International Symposium on Information Theory*
Yu, W., Cioffi, J. M.
IEEE.2000: 431–431
- **FDMA-based multuser transmit optimization for broadcast channels** *IEEE Wireless Communications and Networking Conference*
Hoo, L. M., Tellado, J., Cioffi, J. M.
IEEE.2000: 597–602
- **FDMA capacity of the Gaussian multiple access channel with ISI** *IEEE International Conference on Communications (ICC 2000)*
Yu, W., Cioffi, J. M.
IEEE.2000: 1365–1369
- **A multi-user precoding scheme achieving crosstalk cancellation with application to DSL systems** *34th Asilomar Conference on Signals, Systems, and Computers*
Ginis, G., Cioffi, J. M.
IEEE.2000: 1627–1631
- **Iterative soft interference cancellation for multiple antenna systems** *IEEE Wireless Communications and Networking Conference*
Choi, W. J., Cheong, K. W., Cioffi, J. M.
IEEE.2000: 304–309
- **Adaptive modulation with limited peak power for fading channels** *51st Vehicular Technology Conference*
Choi, W. J., Cheong, K. W., Cioffi, J. M.
IEEE.2000: 2568–2572
- **Spatial multuser access with antenna diversity using singular value decomposition** *IEEE International Conference on Communications (ICC 2000)*
Kim, J., Cioffi, J. M.
IEEE.2000: 1253–1257
- **An estimation-based approach to Multiple-Input Multiple-Output (MIMO) channel equalization** *1st IEEE Sensor Array and Multichannel Signal Processing Workshop (SAM 2000)*
Tehrani, A. M., Hassibi, B., Cioffi, J.
IEEE.2000: 27–31
- **Adaptive equalization of multiple-input multiple-output (MIMO) channels** *IEEE International Conference on Communications (ICC 2000)*
Maleki-Tehrani, A., Hassibi, B., Cioffi, J. M.
IEEE.2000: 1670–1674
- **Utilizing multuser diversity for multiple antenna systems** *IEEE Wireless Communications and Networking Conference*
Rhee, W. J., Yu, W., Cioffi, J. M.
IEEE.2000: 420–425
- **Combined ML and DFE decoding for the V-BLAST system** *IEEE International Conference on Communications (ICC 2000)*
Choi, W. J., Negi, R., Cioffi, J. M.
IEEE.2000: 1243–1248
- **Spatial multuser access OFDM with antenna diversity and power control** *52nd IEEE Vehicular Technology Conference (VTC 2000)*
Kim, J., Cioffi, J. M.
IEEE.2000: 273–279
- **Increase in capacity of multuser OFDM system using dynamic subchannel allocation** *51st Vehicular Technology Conference*

-
- Rhee, W., Cioffi, J. M.
IEEE.2000: 1085–1089
- **Robust loading in the presence of channel profile selection** *5th International Conference on Signal Processing*
Salvekar, A., Cioffi, J.
PUBLISHING HOUSE ELECTRONICS INDUSTRY.2000: 1786–1789
 - **Increase in capacity of multiuser OFDM system using dynamic subchannel allocation**
Rhee, W., Cioffi, J., M.
2000
 - **Utilizing multiuser diversity for multiple antenna systems**
Rhee, W., Yu, W., Cioffi, J., M.
2000
 - **Spatial multiuser access OFDM with antenna diversity and power control**
Kim, J., Cioffi, J., M.
2000
 - **Receive diversity for mobile OFDM systems**
Hutter, A., A., Hammerschmidt, J., S., Carvalho, E., De, Cioffi, J., M.
2000
 - **On the impact of channel estimation for multiple antenna diversity reception in mobile OFDM systems**
Hutter, A., A., Carvalho, E., De, Cioffi, J., M.
2000
 - **Discrete Hartley transform based multicarrier modulation**
Wang, C., L., Chang, C., H., Fan, J., L., Cioffi, J., M.
2000
 - **Combined ML and DFE decoding for the V-BLAST system**
Choi, W., J., Negi, R., Cioffi, J., M.
2000
 - **An estimation-based approach to multiple-input multiple-output (MIMO) channel equalization**
Tehrani, A., M., Hassibi, B., Cioffi, J., M.
2000
 - **Adaptive channel estimation scheme for DS-CDMA systems**
Oh, H., J., Cioffi, J., M.
2000
 - **A multi-user precoding scheme achieving crosstalk cancellation with application to DSL systems**
Ginis, G., Cioffi, J., M.
2000
 - **Multiuser detection for vector multiple access channels using generalized decision feedback equalization**
Yu, W., Cioffi, J., M.
2000
 - **Maximizing data rate-sum over vector multiple access channel**
Klimovitch, G., V., Cioffi, J., M.
2000
 - **FDMA capacity of the Gaussian multiple access channel with ISI**
Yu, W., Cioffi, J., M.
2000
 - **Adaptive equalization of multiple-input multiple-output (MIMO) channels**
Maleki-Tehrani, A., Hassibi, B., Cioffi, J., M.

2000

- **Spatial multiuser access with antenna diversity using singular value decomposition**
Kim, J., Cioffi, J., M.
2000
- **Robust loading in the presence of channel profile selection**
Salvekar, A., A., Cioffi, J., M.
2000
- **Iterative soft interference cancellation for multiple antenna systems**
Choi, W., J., Cheong, K., W., Cioffi, J., M.
2000
- **Frequency selective NEXT cancellation**
Koo, J., M., Kim, B., M., Lee, H., S., Cioffi, J., M.
2000
- **Cramer-Rao bounds for blind multichannel estimation**
Carvalho, E., De, Cioffi, J., M., Slock, D.
2000
- **Competitive equilibrium in the Gaussian interference channel**
Yu, W., Cioffi, J., M.
2000
- **Adaptive modulation with limited peak power for fading channels**
Choi, W., J., Cheong, K., W., Cioffi, J., M.
2000
- **Accurate noise estimates in multicarrier systems** *52nd IEEE Vehicular Technology Conference (VTC 2000)*
Aldana, C. H., Salvekar, A. A., Tellado, J., Cioffi, J.
IEEE.2000: 434–438
- **Efficient water-filling algorithms for a Gaussian multiaccess channel with ISI** *52nd IEEE Vehicular Technology Conference (VTC 2000)*
Zeng, C. H., Hoo, L. M., Cioffi, J. M.
IEEE.2000: 1072–1077
- **Multiuser loading algorithms for multicarrier systems with embedded constellations** *IEEE International Conference on Communications (ICC 2000)*
Hoo, L. M., Tellado, J., Cioffi, J. M.
IEEE.2000: 1115–1119
- **Minimum outage transmission over fading channels with delay constraint** *IEEE International Conference on Communications (ICC 2000)*
Negi, R., Charikar, M., Cioffi, J.
IEEE.2000: 282–286
- **Stationary schemes for optimal transmission over fading channels with delay constraint** *52nd IEEE Vehicular Technology Conference (VTC 2000)*
Negi, R., Cioffi, J.
IEEE.2000: 358–361
- **Very-high-speed digital subscriber lines** *IEEE COMMUNICATIONS MAGAZINE*
Cioffi, J. M., Oksman, V., Werner, J. J., Pollet, T., Spruyt, P. M., Chow, J. S., Jacobsen, K. S.
1999; 37 (4): 72-79
- **Trellis code design for periodic interleavers** *IEEE COMMUNICATIONS LETTERS*
Wesel, R. D., Cioffi, J. M.
1999; 3 (4): 103-105
- **Probability density functions for analyzing multi-amplitude constellations in Rayleigh and Ricean channels** *IEEE TRANSACTIONS ON COMMUNICATIONS*
Wilson, S. K., Cioffi, J. M.

1999; 47 (3): 380-386

- **Adaptive antennas for space-time coding over block-time invariant multi-path fading channels** *49th IEEE Vehicular Technology Conference (VTC 99)*
Negi, R., Tehrani, A. M., Cioffi, J.
IEEE.1999: 70-74
- **Estimation-based synthesis of H-infinity-optimal adaptive equalizers over wireless channels** *IEEE Global Communications Conference (GLOBECOM 99)*
Maleki-Tehrani, A., Sayyarodsari, B., Hassibi, B., How, J. P., Cioffi, J. M.
IEEE.1999: 457-461
- **Maximum Likelihood detection of nonlinearly distorted multicarrier symbols by iterative decoding** *IEEE Global Communications Conference (GLOBECOM 99)*
Tellado, J., Hoo, L. M., Cioffi, J. M.
IEEE.1999: 2493-2498
- **Constrained-coding techniques for soft iterative decoders** *IEEE Global Communications Conference (GLOBECOM 99)*
Fan, J. L., Cioffi, J. M.
IEEE.1999: 723-727
- **Comparison of multi-channel adaptive MLSE equalizers using different channel tracking strategies** *IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP 99)*
Chen, J. T., Kim, J., Cioffi, J.
IEEE.1999: 2721-2724
- **Transmission optimization with a space-time filter at low SNR wireless environment** *IEEE Global Communications Conference (GLOBECOM 99)*
Kim, J., Cioffi, J. M.
IEEE.1999: 889-893
- **Turbo decision aided equalization for magnetic recording channels** *IEEE Global Communications Conference (GLOBECOM 99)*
Wu, Z. N., Cioffi, J. M.
IEEE.1999: 733-738
- **Probability density functions for analyzing multi-amplitude constellations in Rayleigh and Ricean channels** *IEEE Transactions on Communications*
Wilson, S., K., Cioffi, J., M.
1999; 47 (3): 380-386
- **Turbo decision aided equalization for magnetic recording channels**
Wu, Z., N., Cioffi, J., M.
1999
- **Transmission over fading channels with channel side information and delay constraint**
Negi, R., Cioffi, J., M.
1999
- **Comparison of multi-channel adaptive MLSE equalizers using different channel tracking strategies**
Chen, J., T., Kim, J., Cioffi, J., M.
1999
- **Turbo trellis coded discrete multitone transmission system**
Lauer, J., P., Cioffi, J., M.
1999
- **Space-time block codes over frequency selective Rayleigh fading channels**
Choi, W., J., Cioffi, J., M.
1999
- **Constrained coding techniques for soft iterative decoders**
Fan, J., L., Cioffi, J., M.
1999
- **Multiple input/multiple output (MIMO) equalization for space-time block coding**

-
- Choi, W., J., Cioffi, J., M.
1999
- **Maximum likelihood detection of nonlinearly distorted multicarrier symbols by iterative decoding**
Tellado, J., Hoo, L., M. C., Cioffi, J., M.
1999
 - **Discrete dual QoS loading algorithms for multicarrier systems**
Hoo, L., M. C., Tellado, J., Cioffi, J., M.
1999
 - **Adaptive equalization of Multiple-Input Multiple-Output (MIMO) frequency selective channels**
Maleki-Tehrani, A., Hassibi, B., Cioffi, J., M.
1999
 - **Space-time coding over a code division multiple access system**
Tehrani, A., M., Negi, R., Cioffi, J., M.
1999
 - **Transmission optimization with a space-time filter at low SNR wireless environment**
Kim, J., Cioffi, J., M.
1999
 - **Estimation-based synthesis of H_{∞} -optimal adaptive equalizers over wireless channels**
Maleki-Tehrani, A., Sayyarodsari, B., Hassibi, B., How, J., P., Cioffi, J., M.
1999
 - **Channel gain change detection and channel profile selection in a multicarrier system**
Salvekar, A., A., Aldana, C., H., Tellado, J., Cioffi, J., M.
1999
 - **Channel gain change detection and channel profile selection in a multicarrier system** *IEEE Global Communications Conference (GLOBECOM 99)*
Salvekar, A., Aldana, C., Tellado, J., Cioffi, J.
IEEE.1999: 1133–1138
 - **Pilot tone selection for channel estimation in a mobile OFDM system** *IEEE TRANSACTIONS ON CONSUMER ELECTRONICS*
Negi, R., Cioffi, J.
1998; 44 (3): 1122-1128
 - **Design of Equalized Maximum-Likelihood Receiver** *IEEE COMMUNICATIONS LETTERS*
Lee, I., Cioffi, J. M.
1998; 2 (1): 14-16
 - **Analysis of and detector comparisons using the microtrack model of magnetic recording** *8th Annual Magnetic Recording Conference (TMRC) on Magnetic Recording Systems*
Modlin, C. S., Fisher, K. D., Cioffi, J. M.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.1998: 63–68
 - **BER analysis of MLSE equalizers for the parametric Rayleigh-fading channels** *IEEE Global Telecommunications Conference (GLOBECOM 98)*
Kim, J. S., Chen, J. T., Cioffi, J. M.
IEEE.1998: 2079–2084
 - **Numerical results on capacity bounds for magnetic recording channels** *IEEE Global Telecommunications Conference (GLOBECOM 98)*
Wu, Z. N., Lin, S., Cioffi, J. M.
IEEE.1998: 3385–3390
 - **Trellis codes for compound periodic Gaussian channels** *IEEE International Symposium on Information Theory*
Wesel, R. D., Liu, X. T., Shi, W., Cioffi, J. M.
IEEE.1998: 462–462

- **Low complexity bit mapping algorithm for multi-carrier communication systems with fading channels**
Kim, J., Chen, J., T., Cioffi, J., M.
1998
- **Discrete wavelet transforms in multi-carrier modulation**
Cheong, K., W., Cioffi, J., M.
1998
- **Numerical results on capacity bounds for magnetic recording channels**
Wu, Z., N., Lin, S., C., Cioffi, J., M.
1998
- **Achievable rates for tomlinson-harashima precoding** *IEEE Transactions on Information Theory*
Wesel, R., D., Cioffi, J., M.
1998; 44 (2): 824–831
- **Spatio-temporal coding for wireless communication** *IEEE Transactions on Communications*
Raleigh, G., G., Cioffi, J., M.
1998; 46 (3): 357–366
- **Trellis codes for compound periodic Gaussian channels**
Wesel, R., D., Liu, X., Shi, W., Cioffi, J., M.
1998
- **Multicarrier systems with imperfect channel knowledge**
Leke, A., Cioffi, J., M.
1998
- **Efficient algorithms for reducing PAR in multicarrier systems**
Tellado, J., Cioffi, J., M.
1998
- **An implementation of discrete multi-tone over slowly time-varying multiple-input/multiple-output channels**
Tehrani, A., M., Hassibi, A., Cioffi, J., M., Boyd, S.
1998
- **The VDSL transmission challenge** *European Transactions on Telecommunications*
Cheong, K., Kim, J., Cioffi, J., M., Kwon, H., Chun, Y., Yoo, K.
1998; 9 (2): 145–154
- **Space-time coding and transmission optimization for wireless channels**
Tehrani, A., M., Negi, R., Cioffi, J., M.
1998
- **Peak Power Reduction for Multicarrier Transmission, Proceedings Comm Theory**
Tellado, J., Cioffi, J., M.
1998
- **Impact of Imperfect Channel Knowledge on the Performance of Multicarrier Systems**
Leke, A., Cioffi, J., M.
1998
- **Dual QoS loading algorithms for DMT systems offering CBR and VBR services**
Hoo, L., M. C., Tellado, J., Cioffi, J., M.
1998
- **BER analysis of MLSE equalizers for the parametric Rayleigh-fading channels**
Kim, J., Chen, J., T., Cioffi, J., M.
1998

- **Analysis of and detector comparisons using the microtrack model of magnetic recording** *IEEE Transactions on Magnetics*
Modlin, C., S., Fisher, K., D., Cioffi, J., M.
1998; 34 (1 PART 1): 63–68
- **Dynamic bandwidth optimization for wireline and wireless channels**
Leke, A., Cioffi, J., M.
1998
- **Turbo coding for discrete multitone transmission systems**
Lauer, J., P., Cioffi, J., M.
1998
- **Quasi-minimum-BER linear combiner equalizers**
Tellado, J., Cioffi, J., M.
1998
- **Precoder for DMT with insufficient cyclic prefix**
Cheong, K., W., Cioffi, J., M.
1998
- **New method of channel shortening with applications to discrete multi tone (DMT) systems**
Pal, D., Iyengar, G., N., Cioffi, J., M.
1998
- **Dual QoS Loading Algorithms for Multicarrier Systems Offering Different CBR Services**
Hoo, L., M. C., Tellado, J., Cioffi, J., M.
1998
- **Codewords over 3-Dimensional Coding Domain: Time-Frequency- Space**
Kim, J., Cioffi, J., M.
1998
- **Blind identification of channels for discrete multitone (DMT) applications**
Leke, A., Cioffi, J., M.
1998
- **A parallel architecture for detection** *IEEE International Symposium on Information Theory*
Fan, J. L., Cioffi, J. M.
IEEE.1998: 263–263
- **A bandwidth-optimized reduced-complexity equalized multicarrier transceiver** *1995 International Conference on Acoustics, Speech, and Signal Processing*
ALDHAHIR, N., Cioffi, J. M.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.1997: 948–56
- **Stable pole-zero modeling of long FIR filters with application to the MMSE-DFE** *IEEE TRANSACTIONS ON COMMUNICATIONS*
ALDHAHIR, N., Sayed, A. H., Cioffi, J. M.
1997; 45 (5): 508-513
- **Mismatched finite-complexity MMSE decision feedback equalizers** *IEEE TRANSACTIONS ON SIGNAL PROCESSING*
ALDHAHIR, N., Cioffi, J. M.
1997; 45 (4): 935-944
- **A bandwidth-optimized reduced-complexity equalized multicarrier transceiver** *IEEE Transactions on Communications*
Al-Dhahir, N., Cioffi, J., M.
1997; 45 (8): 948–956
- **A MMSE interpolated timing recovery scheme for the magnetic recording channel** *1997 IEEE International Conference on Communications - Towards the Knowledge Millennium (ICC 97)*
Wu, Z. N., Cioffi, J. M., Fisher, K. D.
IEEE.1997: 1625–1629

- **A Programmable Codec design for Trellis Coded Modulation** *IEEE Global Telecommunications Conference (GLOBECOM 97)*
Lou, H. L., Tong, P., Cioffi, J. M.
IEEE.1997: 944–947
- **Decision feedback equalization for channels with error correcting capabilities** *1997 IEEE International Conference on Communications - Towards the Knowledge Millennium (ICC 97)*
BEDNARZ, P. S., Cioffi, J. M.
IEEE.1997: 1607–1612
- **Packet detection for magnetic storage channels** *IEEE Global Telecommunications Conference (GLOBECOM 97)*
Lin, S. C., Cioffi, J. M.
IEEE.1997: 1254–1257
- **Programmable codec design for Trellis Coded Modulation**
Lou, H., L., Tong, P., Cioffi, J., M.
1997
- **Packet Detection for Magnetic Storage Channels**
Lin, S., C., Cioffi, J., M.
1997
- **Joint interleaver and trellis code design**
Wesel, R., D., Cioffi, J., M.
1997
- **A Maximum Rate Loading Algorithm for Discrete Multitone Modulation**
Leke, A., Cioffi, J., M.
1997
- **Upper bounds on achievable storage density: a two-dimensional approach** *IEEE Transactions on Magnetics*
Voois, P., A., Cioffi, J., M.
1997; 33 (1): 844–854
- **MMSE interpolated timing recovery scheme for the magnetic recording channel**
Wu, Z., N., Cioffi, J., M., Fisher, K., D.
1997
- **Stable pole-zero modeling of long FIR filters with application to the MMSE-DFE** *IEEE Transactions on Communications*
Al-Dhahir, N., Sayed, A., H. H., Cioffi, J., M.
1997; 45 (5): 508–513
- **Transmit Optimization for Time-Invariant Wireless Channels Utilizing a Discrete Multitone Approach**
Leke, A., Cioffi, J., M.
1997
- **Effects of channel estimation errors on discrete multitone modulation (DMT) systems in a Rayleigh fading environment**
Leke, A., Cioffi, J., M.
1997
- **Reduced-complexity nonlinear techniques for narrowband interference suppression in spread-spectrum CDMA systems**
Wang, C., L., Wang, C., F., Cioffi, J., M.
1997
- **Decision feedback equalization for channels with error correcting capabilities**
Bednarz, P., S., Cioffi, J., M.
1997
- **Equalized maximum likelihood receiver with a unit energy constraint** *IEEE Transactions on Magnetics*
Lee, I., Cioffi, J., M.
1997; 33 (1): 855–862

-
- **Mismatched finite-complexity MMSE decision feedback equalizers** *IEEE Transactions Signal Processing*
Al-Dhahir, N., Cioffi, J., M.
1997; 45 (4): 935–944
 - **Efficiently computed reduced-parameter input-aided MMSE equalizers for ML detection: A unified approach** *IEEE TRANSACTIONS ON INFORMATION THEORY*
ALDHAHIR, N., Cioffi, J. M.
1996; 42 (3): 903-915
 - **Symbol rate optimization for the MMSE-DFE on bandlimited dispersive channels** *DIGITAL SIGNAL PROCESSING*
ALDHAHIR, N., Cioffi, J. M.
1996; 6 (2): 73-95
 - **Efficient computation of the delay-optimized finite-length MMSE-DFE** *IEEE Transactions Signal Processing*
Al-Dhahir, N., Cioffi, J., M.
1996; 44 (5): 1288–1292
 - **Block transmission over dispersive channels: Transmit filter optimization and realization, and MMSE-DFE receiver performance** *IEEE TRANSACTIONS ON INFORMATION THEORY*
ALDHAHIR, N., Cioffi, J. M.
1996; 42 (1): 137-160
 - **Optimum finite-length equalization for multicarrier transceivers** *IEEE TRANSACTIONS ON COMMUNICATIONS*
ALDHAHIR, N., Cioffi, J. M.
1996; 44 (1): 56-64
 - **Efficiently computed reduced-parameter input-aided MMSE equalizers for ML detection: A unified approach** *IEEE Transactions on Information Theory*
Al-Dhahir, N., Cioffi, J., M.
1996; 42 (3): 903–915
 - **Effect of timing jitter on the performance of a discrete multitone system** *IEEE Transactions on Communications*
Zogakis, T., N., Cioffi, J., M.
1996; 44 (7): 799–808
 - **Adaptive DFE for GMSK in indoor radio channels** *IEEE Journal on Selected Areas in Communications*
Tellado-Mourelo, J., Wesel, E., K., Cioffi, J., M.
1996; 14 (3): 492–501
 - **The effect of decision delay in finite-length decision feedback equalization** *IEEE Transactions on Information Theory*
Voois, P., A., Lee, I., Cioffi, J., M.
1996; 42 (2): 618–621
 - **On the uniform ADC bit precision and clip level computation for a Gaussian signal** *IEEE Transactions Signal Processing*
Al-Dhahir, N., Cioffi, J., M.
1996; 44 (2): 434–438
 - **Block transmission over dispersive channels: Transmit filter optimization and realization, and MMSE-DFE receiver performance** *IEEE Transactions on Information Theory*
Al-Dhahir, N., Cioffi, J., M.
1996; 42 (1): 137–160
 - **Symbol Rate Optimization for the MMSE-DFE on Bandlimited Dispersive Channels** *Digital Signal Processing: A Review Journal*
Al-Dhahir, N., Cioffi, J., M.
1996; 6 (2): 73–95
 - **ADSL answers the need for speed** *Telephony*
Cioffi, J., M.
1996; 231 (7): 34–36
 - **Achievable throughput of multicarrier-based multipoint-to-point networks using a reservation-based channel access protocol**

-
- Jacobsen, K., S., Cioffi, J., M.
1996
- **Optimum Finite-Length Equalization for Multicarrier Transceivers** *IEEE Transactions on Communications*
Al-Dhahir, N., Cioffi, J., M.
1996; 44 (1): 56–64
 - **Discrete multitone echo cancelation** *IEEE Transactions on Communications*
Ho, M., Cioffi, J., M., Bingham, J., A. C.
1996; 44 (7): 817–825
 - **FAST COMPUTATION OF CHANNEL-ESTIMATE BASED EQUALIZERS IN PACKET DATA-TRANSMISSION** *IEEE TRANSACTIONS ON SIGNAL PROCESSING*
ALDHAHIR, N., Cioffi, J. M.
1995; 43 (11): 2462-2473
 - **MMSE DECISION-FEEDBACK EQUALIZERS - FINITE-LENGTH RESULTS** *IEEE TRANSACTIONS ON INFORMATION THEORY*
ALDHAHIR, N., Cioffi, J. M.
1995; 41 (4): 961-975
 - **PERFORMANCE EVALUATION OF AN ADAPTIVE RAM-DFE READ CHANNEL** *5th Annual Magnetic Recording Conference (TMRC) on Signal Processing*
BEDNARZ, P. S., Sands, N. P., Modlin, C. S., Lin, S. C., Lee, I., Cioffi, J. M.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.1995: 1121–27
 - **DESIGN, PERFORMANCE, AND EXTENSIONS OF THE RAM-DFE ARCHITECTURE** *5th Annual Magnetic Recording Conference (TMRC) on Signal Processing*
BEDNARZ, P. S., Lin, S. C., Modlin, C. S., Cioffi, J. M.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.1995: 1196–1201
 - **A PRACTICAL DISCRETE MULTITONE TRANSCEIVER LOADING ALGORITHM FOR DATA-TRANSMISSION OVER SPECTRALLY SHAPED CHANNELS** *IEEE TRANSACTIONS ON COMMUNICATIONS*
Chow, P. S., Cioffi, J. M., Bingham, J. A.
1995; 43 (2-4): 773-775
 - **Achievable rates for Tomlinson-Harashima precoding** *1995 IEEE International Symposium on Information Theory*
Wesel, R. D., Cioffi, J. M.
IEEE.1995: 399–399
 - **THE COMBINATION OF FINITE-LENGTH GEOMETRIC EQUALIZATION AND BANDWIDTH OPTIMIZATION FOR MULTICARRIER TRANSCEIVERS** *1995 International Conference on Acoustics, Speech, and Signal Processing*
ALDHAHIR, N., Cioffi, J.
IEEE.1995: 1201–1204
 - **A comparison of a single-carrier system using a DFE and a coded OFDM system in a broadcast Rayleigh-fading channel** *1995 IEEE International Symposium on Information Theory*
Wilson, S. K., Cioffi, J. M.
IEEE.1995: 335–335
 - **Comparison of a single-carrier system using a DFE and a coded OFDM system in a broadcast Rayleigh-fading channel**
Wilson, S., K., Cioffi, J., M.
1995
 - **A Fast Computation Algorithm for the Decision Feedback Equalizer** *IEEE Transactions on Communications*
Lee, I., Cioffi, J., M.
1995; 43 (11): 2742–2749
 - **Practical discrete multitone transceiver loading algorithm for data transmission over spectrally shaped channels** *IEEE Transactions on Communications*
Chow, P., S., Cioffi, J., M., Bingham, J., A. C.
1995; 43 (2–4 pt 2): 773–775

- **A canonical finite-length MMSE-DFE**
Al-Dhahir, N., Cioffi, J., M., Forney Jr., G., D.
1995
- **MMSE decision-feedback equalizers: finite-length results** *IEEE Transactions on Information Theory*
Al-Dhahir, N., Cioffi, J., M.
1995; 41 (4): 961–975
- **Equalizing GMSK for high data rate wireless LANs**
Tellado, J., Khayata, E., Cioffi, J., M.
1995
- **A Discrete Multitone-based Network Protocol for Multipoint-to-Digital Communications in the CATV Reverse Channel**
Jacobsen, K., S., Bingham, J., A. C., Cioffi, J., M.
1995
- **Sliding-block line codes to increase dispersion-limited distance of optical fiber channels** *IEEE Journal on Selected Areas in Communications*
Swenson, N., L., Cioffi, J., M.
1995; 13 (3): 485–498
- **Fast computation of channel-estimate based equalizers in packet data transmission** *IEEE Transactions on Signal Processing*
Al-Dhahir, N., Cioffi, J., M.
1995; 43 (11): 2462–2473
- **Coded and shaped discrete multitone system** *IEEE Transactions on Communications*
Zogakis, T., N., Aslanis Jr., J., T., Cioffi, J., M.
1995; 43 (12): 2941–2949
- **Performance evaluation of a fast computation algorithm for the DMT in high-speed subscriber loop** *IEEE Journal on Selected Areas in Communications*
Lee, I., Chow, J., S., Cioffi, J., M.
1995; 13 (9): 1564–1570
- **Synchronized DMT for multipoint-to-point communications on HFC networks**
Jacobsen, K., S., Bingham, J., A. C., Cioffi, J., M.
1995
- **Fundamentals of coding for broadcast OFDM**
Wesel, R., D., Cioffi, J., M.
1995
- **Adaptive DFE for GMSK in indoor radio channels**
Mourello, J., T., Wesel, E., K., Cioffi, J., M.
1995
- **Performance evaluation of an adaptive RAM-DFE read channel** *IEEE Transactions on Magnetics*
Bednarz, P., S., Sands, N., P., Modlin, C., S., Lin, S., C., Lee, I., Cioffi, J., M.
1995; 31 (2): 1121–1127
- **A DATA-DRIVEN MULTITONE ECHO CANCELER** *IEEE TRANSACTIONS ON COMMUNICATIONS*
Cioffi, J. M., Bingham, J. A.
1994; 42 (10): 2853-2869
- **TIMING RECOVERY FOR ECHO-CANCELED DISCRETE MULTITONE SYSTEMS** *1994 IEEE International Conference on Communications (SUPERCOMM/ICC 94): Serving Humanity Through Communications*
Ho, M., Cioffi, J. M.
IEEE.1994: 307–310
- **OPTIMUM FINITE-LENGTH EQUALIZATION FOR MULTICARRIER TRANSCEIVERS** *1994 IEEE GLOBECOM - Communications, the Global Bridge*
ALDHAHIR, N., Cioffi, J.

IEEE.1994: 1884–1888

- **REDUCED-STATE NONLINEAR EQUALIZATION FOR MAGNETIC STORAGE** *1994 IEEE GLOBECOM - Communications, the Global Bridge*
Modlin, C. S., Cioffi, J. M.
IEEE.1994: 1134–1138
- **A FAST DECISION-FEEDBACK LMS ALGORITHM USING MULTIPLE STEP SIZES** *1994 IEEE International Conference on Communications (SUPERC0MM/ICC 94): Serving Humanity Through Communications*
Modlin, C. S., Cioffi, J. M.
IEEE.1994: 1201–1205
- **A RESTRUCTURED DECISION FEEDBACK EQUALIZER FOR FACILITATING THE LMS ALGORITHM** *28th Asilomar Conference on Signals, Systems and Computers*
Modlin, C. S., Cioffi, J. M.
IEEE COMPUTER SOC.1994: 1525–1529
- **ERASURE TAGGING IN A SLOW RAYLEIGH-FADING ENVIRONMENT** *1994 IEEE GLOBECOM - Communications, the Global Bridge*
Wilson, S. K., Bingham, J. A., Mallory, M., Cioffi, J. M.
IEEE.1994: 984–988
- **MODIFIED MAXIMUM-LIKELIHOOD SEQUENCE ESTIMATION IN A SIMPLE PARTIAL ERASURE MODEL** *1994 IEEE International Conference on Communications (SUPERC0MM/ICC 94): Serving Humanity Through Communications*
Lee, I. Y., Yamauchi, T., Cioffi, J. M.
IEEE.1994: 245–249
- **A FAST COMPUTATION ALGORITHM FOR THE DECISION FEEDBACK EQUALIZER IN A MAGNETIC RECORDING CHANNEL** *1994 IEEE GLOBECOM - Communications, the Global Bridge*
Lee, I., Cioffi, J. M.
IEEE.1994: 1152–1156
- **16 QAM MODULATION WITH ORTHOGONAL FREQUENCY-DIVISION MULTIPLEXING IN A RAYLEIGH-FADING ENVIRONMENT** *44th Vehicular Technology Conference: Creating Tomorrows Mobile Systems (VTC 1994)*
Wilson, S. K., KHAYATA, R. E., Cioffi, J. M.
IEEE.1994: 1660–1664
- **Multi-drop in-house ADSL distribution network**
Chow, P., S., Cioffi, J., M.
1994
- **High-performance multimedia transmission on the cable television network**
Jacobsen, K., S., Cioffi, J., M.
1994
- **Timing recovery for echo-cancelled discrete multitone systems**
Ho, M., Cioffi, J., M.
1994
- **Fast decision feedback LMS algorithm using multiple step sizes**
Modlin, C., S., Cioffi, J., M.
1994
- **Performance comparison of receivers in a simple partial erasure model** *IEEE Transactions on Magnetics*
Lee, I., Yamauchi, T., Cioffi, J., M.
1994; 30 (4): 1465–1469
- **DMT-based ADSL: concept, architecture, and performance** *in IEE Colloquium (Digest)*
Chow, P., S., Cioffi, J., M., Bingham, J., A. C.
1994: 3/1–6
- **Improved detector for channels with nonlinear intersymbol interference**
Sands, N., P., Cioffi, J., M.

1994

- **Optimum Finite-Length Equalization for Multicarrier Transceivers**
Al-Dhahir, N., Cioffi, J., M.
1994
- **Modified maximum likelihood sequence estimation in a simple partial erasure model**
Lee, I., Yamauchi, T., Cioffi, J., M.
1994
- **Design, performance, and extensions of the RAM-DFE architecture**
Bednarz, P., S., Lin, S., C., Modlin, C., S., Cioffi, J., M.
1994
- **Application of shaping to discrete multitone modulation**
Zogakis, T., N., Cioffi, J., M.
1994
- **Data-driven multitone echo canceller** *IEEE Transactions on Communications*
Cioffi, J., M., Bingham, J., A. C.
1994; 42 (10): 2853–2869
- **Precoding and the MMSE-DFE**
Wesel, R., D., Cioffi, J., M.
1994
- **Performance Evaluation Of An Adaptive Ram-dfe Read Channel**
Bednarz, P., S., Sands, N., P., Modlin, C., S., Lin, S., C., Lee, I., Cioffi, J., M.
1994
- **Erasure tagging in a slow Rayleigh-fading environment**
Wilson, S., K., Bingham, J., A. C., Mallory, M., Cioffi, J., M.
1994
- **DMT-based ADSL: concept, architecture, and performance**
Chow, P., S., Cioffi, J., M., Bingham, J., A. C.
1994
- **Optimum finite-length equalization for multicarrier transceivers** *in IEEE Transactions on Communications*
Al-Dhahir, N., Cioffi, J., M.
1994; 44 , 3 (1): 1884–1888
- **Reduced-state nonlinear equalization for magnetic storage**
Modlin, C., S., Cioffi, J., M.
1994
- **Analysis of a concatenated coding scheme for a discrete multitone modulation system**
Zogakis, T., N., Aslanis Jr., J., T., Cioffi, J., M.
1994
- **An Efficient Digital Modulation Scheme for Multimedia Transmission on Cable Television Network**
Jacobsen, K., S., Cioffi, J., M.
1994
- **A restructured decision feedback equalizer for facilitating the LMS algorithm**
Modlin, C., S., Cioffi, J., M.
1994
- **Multichannel signal processing for multiple-head digital magnetic recording** *IEEE Transactions on Magnetics*
Voois, P., A., Cioffi, J., M.

1994; 30 (6 pt 2): 5100–5114

- **A fast computation algorithm for the decision feedback equalizer**
Lee, I., Cioffi, J., M.
1994
- **16 QAM modulation with orthogonal frequency division multiplexing in a Rayleigh-fading environment**
Wilson, S., K., Khayata, R., E., Cioffi, J., M.
1994
- **NONLINEAR CHANNEL MODELS FOR DIGITAL MAGNETIC RECORDING** *1993 IEEE International Magnetics Conference (INTERMAG 93)*
Sands, N. P., Cioffi, J. M.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.1993: 3996–98
- **A NONLINEAR MODEL FOR THIN-FILM DISK RECORDING-SYSTEMS** *1993 IEEE International Magnetics Conference (INTERMAG 93)*
Yamauchi, T., Cioffi, J. M.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.1993: 3993–95
- **A MULTICARRIER E1-HDSL TRANSCIEVER SYSTEM WITH CODED MODULATION** *EUROPEAN TRANSACTIONS ON TELECOMMUNICATIONS*
Chow, P. S., ALDHAHIR, N., Cioffi, J. M., Bingham, J. A.
1993; 4 (3): 257-266
- **Nonlinear channel models for digital magnetic recording** *IEEE Transactions on Magnetics*
Sands, N., P., Cioffi, J., M.
1993; 29 (6 pt 2): 3996–3998
- **HIGH-SPEED FULL-DUPLEX ECHO CANCELLATION FOR DISCRETE MULTITONE MODULATION** *IEEE INTERNATIONAL CONF ON COMMUNICATIONS - COMMUNICATIONS : TECHNOLOGY THAT UNITED NATIONS (ICC 93)*
Ho, M., Cioffi, J. M., Bingham, J. A.
I E E E.1993: 772–776
- **EQUALIZER TRAINING ALGORITHMS FOR MULTICARRIER MODULATION SYSTEMS** *IEEE INTERNATIONAL CONF ON COMMUNICATIONS - COMMUNICATIONS : TECHNOLOGY THAT UNITED NATIONS (ICC 93)*
Chow, J. S., Cioffi, J. M., Bingham, J. A.
I E E E.1993: 761–765
- **ADAPTIVE EQUALIZATION FOR DIGITAL WIRELESS DATA-TRANSMISSION** *2ND SYMP ON WIRELESS PERSONAL COMMUNICATIONS*
ZIEGLER, R. A., Cioffi, J. M.
KLUWER ACADEMIC PUBLISHERS.1993: 141–158
- **OPTIMAL TRANSMIT FILTERS FOR PACKET-BASED DATA-TRANSMISSION ON DISPERSIVE CHANNELS WITH APPLICATION TO THE FIR MMSE-DFE** *1993 IEEE INTERNATIONAL CONF ON ACOUSTICS, SPEECH, AND SIGNAL PROCESSING (ICASSP 93)*
ALDHAHIR, N., Cioffi, J.
I E E E.1993: C1–C4
- **EQUALIZED MAXIMUM-LIKELIHOOD RECEIVER IN A MAGNETIC RECORDING CHANNEL** *IEEE Global Telecommunications Conference, Including a Communications Theory Mini-Conference*
Lee, I. Y., Modlin, C., Cioffi, J. M.
IEEE.1993: 1970–1973
- **FINITE-LENGTH VS INFINITE-LENGTH MMSE-DFE - THE CONNECTION** *27th Asilomar Conference on Signals, Systems and Computers*
ALDHAHIR, N., Cioffi, J.
I E E E, COMPUTER SOC PRESS.1993: 677–681
- **BANDWIDTH OPTIMIZATION FOR COMBINED EQUALIZATION AND CODING TRANSCIEVERS WITH EMPHASIS ON THE MMSE-DFE** *1993 IEEE Military Communications Conference (MILCOM 93): Communications on the Move*
ALDHAHIR, N., Cioffi, J.
I E E E.1993: 471–475
- **Impulse noise mitigation strategies for multicarrier modulation**
Zogakis, T., N., Chow, P., S., Aslanis, J., T., Cioffi, J., M.

1993

- **Optimal transmit for packet-based data transmission on dispersive channels with application to the FIR MMSE-DFE**
Al-Dhahir, N., Cioffi, J., M.
1993
- **Nonlinear model for thin film disk recording systems** *IEEE Transactions on Magnetics*
Yamauchi, T., Cioffi, J., M.
1993; 29 (6 pt 2): 3993–3995
- **Equalizer training algorithms for multicarrier modulation systems**
Chow, J., S., Cioffi, J., M., Bingham, J., A. C.
1993
- **Multichannel modulation as a technique for transmission in radio channels**
Okrah, P., O., Cioffi, J., M.
1993
- **Equalization techniques for direct sequence code-division multiple access systems in multipath channels**
Wilson, S., K., Cioffi, J., M.
1993
- **Finite-length vs. infinite-length MMSE-DFE: the connection**
Al-Dhahir, N., Cioffi, J., M.
1993
- **A High-Performance Cost-Effective Pole-Zero MMSE-DFE**
Al-Dhahir, N., Sayed, A., H., Cioffi, J., M.
1993
- **Multicarrier E1-HDSL transceiver system with coded modulation** *European Transactions on Telecommunications and Related Technologies*
Chow, P., S., Al-Dhahir, N., Cioffi, J., M., Bingham, J., A. C.
1993; 4 (3): 23–32
- **Nonlinear Model In Thin Film Disk Recording System**
Yamauchi, T., Cioffi, J., M.
1993
- **Multi-tone transmission for asymmetric digital subscriber lines (ADSL)**
Sistanizadeh, K., Chow, P., S., Cioffi, J., M.
1993
- **High-speed full-duplex echo cancellation for discrete multitone modulation**
Ho, M., Cioffi, J., M., Bingham, J., A. C.
1993
- **Equalized maximum likelihood receiver in a magnetic recording channel**
Lee, I., Modlin, C., S., Cioffi, J., M.
1993
- **Bandwidth optimization for combined equalization and coding transceivers with emphasis on the MMSE-DFE**
Al-Dhahir, N., Cioffi, J., M.
1993
- **ESTIMATION OF TIME-VARYING DIGITAL RADIO CHANNELS** *IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY*
ZIEGLER, R. A., Cioffi, J. M.
1992; 41 (2): 134-151
- **Multidimensional signal sets through the shell construction for parallel channels** *IEEE Transactions on Communications*
Fortier, P., Ruiz, A., Cioffi, J., M.

1992; 40 (3): 500–512

- **FAST ALGORITHMS FOR THE COMPUTATION OF THE FINITE LENGTH DECISION FEEDBACK EQUALIZER** *INTERNATIONAL CONF ON ACOUSTICS, SPEECH AND SIGNAL PROCESSING*
ALDHAHIR, N., Cioffi, J.
I E E E.1992: D533–D536
- **COMBINED EQUALIZATION AND CODING FOR HIGH-DENSITY SATURATION RECORDING CHANNELS** *IEEE JOURNAL ON SELECTED AREAS IN COMMUNICATIONS*
ABBOTT, W. L., Cioffi, J. M.
1992; 10 (1): 168-181
- **NONRECURSIVE ADAPTIVE DECISION-FEEDBACK EQUALIZATION FROM CHANNEL ESTIMATES** *42ND CONF OF THE VEHICULAR TECHNOLOGY SOC - FRONTIERS OF TECHNOLOGY : FROM PIONEERS TO THE 21ST CENTURY*
ZIEGLER, R. A., ALDHAHIR, N. M., Cioffi, J. M.
I E E E.1992: 600–603
- **Combined equalization and coding for high-density saturation recording channels** *IEEE Journal on Selected Areas in Communications*
Abbott, W., L., Cioffi, J., M.
1992; 10 (1): 168–181
- **Bandwidth optimization for high speed data transmission over channels with severe intersymbol interference**
Chow, P., S., Cioffi, J., M.
1992
- **Achievable information rates on digital subscriber loops: limiting information rates with crosstalk noise** *IEEE Transactions on Communications*
Aslanis Jr., J, T, Cioffi, J., M.
1992; 40 (2): 361–372
- **Adaptive recursive-least-squares lattice and transversal filters for continuous-time signal processing** *IEEE Transactions Circuits and Systems II: Analog and Digital Signal Processing*
Lev-Ari, H., Kailath, T., Cioffi, J., M.
1992; 39 (2): 81–89
- **Performance analysis of the modified maximum likelihood sequence detector in the presence of data-dependent noise**
Lee, I., Cioffi, J., M.
1992
- **Nonrecursive adaptive decision-feedback equalization from channel estimates**
Ziegler, R., A., Al-Dhahir, M., W., Cioffi, J., M.
1992
- **Adaptive equalization for digital wireless data transmission**
Ziegler, R., A., Cioffi, J., M.
1992
- **A cost-effective maximum likelihood receiver for multicarrier systems**
Chow, J., S., Cioffi, J., M.
1992
- **A 54 Mhz BiCMOS Digital Equalizer For Magnetic Disk Drives**
Fisher, K., D., Bednarz, P., S., Kouloheris, J., Fowler, B., Cioffi, J., M., Gamal, A., El
1992
- **Multichannel digital magnetic recording**
Voois, P., A., Cioffi, J., M.
1992
- **Fast algorithms for the computation of the finite length decision feedback equalizer**
Al-Dhahir, N., Cioffi, J., M.
1992

- **Achievable radial information densities in magnetic recording systems**
Voois, P., A., Cioffi, J., M.
1992
- **A finite precision analysis of the block-gradient adaptive data-driven echo canceller** *IEEE Transactions on Communications*
Cioffi, J., M., Ho, M.
1992; 40 (5): 940–946
- **Estimation of time-varying digital radio channels** *IEEE Transactions on Vehicular Technology*
Ziegler, R., A., Cioffi, J., M.
1992; 41 (2): 134–151
- **AN ADAPTIVE RAM-DFE FOR STORAGE CHANNELS** *IEEE TRANSACTIONS ON COMMUNICATIONS*
Fisher, K. D., Cioffi, J. M., ABBOTT, W. L., BEDNARZ, P. S., MELAS, C. M.
1991; 39 (11): 1559-1568
- **PERFORMANCE EVALUATION OF A MULTICHANNEL TRANSCIEVER SYSTEM FOR ADSL AND VHDSL SERVICES** *IEEE JOURNAL ON SELECTED AREAS IN COMMUNICATIONS*
Chow, P. S., Tu, J. C., Cioffi, J. M.
1991; 9 (6): 909-919
- **An adaptive RAM-DFE for storage channels** *IEEE Transactions on Communications*
Fisher, K., D., Cioffi, J., M., Abbott, W., L., Bednarz, P., S., Melas, C., M.
1991; 39 (11): 1559–1568
- **A MULTICHANNEL TRANSCIEVER SYSTEM FOR ASYMMETRIC DIGITAL SUBSCRIBER LINE SERVICE** *IEEE GLOBAL TELECOMMUNICATIONS CONF (GLOBECOM 91)*
Chow, P. S., Tu, J. C., Cioffi, J. M.
I E E E.1991: 1992–1996
- **NONLINEAR IDENTIFICATION ON THE DIGITAL MAGNETIC RECORDING CHANNEL** *25TH ASILOMAR CONF ON SIGNALS, SYSTEMS AND COMPUTERS*
Sands, N. P., Cioffi, J. M.
I E E E, COMPUTER SOC PRESS.1991: 6–10
- **A DATA-DRIVEN MULTITONE ECHO CANCELER** *IEEE GLOBAL TELECOMMUNICATIONS CONF (GLOBECOM 91)*
Cioffi, J. M., Bingham, J. A.
I E E E.1991: 57–61
- **A COMPARISON OF MAXIMUM-LIKELIHOOD SEQUENCE DETECTION AND NONLINEAR DECISION FEEDBACK EQUALIZATION ON THE DIGITAL MAGNETIC RECORDING CHANNEL** *IEEE GLOBAL TELECOMMUNICATIONS CONF (GLOBECOM 91)*
Sands, N. P., Cioffi, J. M.
I E E E.1991: 2146–2150
- **ESTIMATION OF TIME-VARYING DIGITAL MOBILE RADIO CHANNELS** *IEEE GLOBAL TELECOMMUNICATIONS CONF (GLOBECOM 91)*
ZIEGLER, R. A., Cioffi, J. M.
I E E E.1991: 1130–1134
- **PERFORMANCE OF DIGITAL MAGNETIC RECORDING WITH EQUALIZATION AND OFFTRACK INTERFERENCE** *IEEE TRANSACTIONS ON MAGNETICS*
ABBOTT, W. L., Cioffi, J. M., Thapar, H. K.
1991; 27 (1): 705-716
- **Performance Evaluation of a Multi-channel Transceiver System for ADSL and VHDSL Services** *IEEE Journal on Selected Areas in Communications*
Chow, P., S., Tu, J., Cioffi, J., M.
1991; 9 (6): 909–919
- **Precluding nonlinear ISI in direct detection long-haul fiber optic systems** *IEEE Photonics Technology Letters*
Swenson, N., L., Shoop, B., L., Cioffi, J., M.
1991; 3 (2): 182–184

- **The Capacity Of A Channel With Gaussian Noise And Intersymbol Interference, (papers in summary form only received)**
Algoet, P., Cioffi, J., M.
1991
- **An instruction set for a programmable signal processor dedicated to Viterbi detection**
Lou, H., L., Cioffi, J., M.
1991
- **A Data-Driven Multitone Echo Canceller**
Cioffi, J., M., Bingham, J., A. C.
1991
- **Trellis Coding For Partial-response CPM**
Bims, H., V, Cioffi, J., M.
1991
- **Estimation of time-varying digital mobile radio channels**
Ziegler, R., A., Cioffi, J., M.
1991
- **A multichannel transceiver system for asymmetric digital subscriber line service**
Chow, P., S., Tu, J., C., Cioffi, J., M.
1991
- **A discrete multitone transceiver system for HDSL applications** *IEEE Journal on Selected Areas in Communications*
Chow, P., S., Tu, J., C., Cioffi, J., M., Chow, J., S.
1991; 9 (6): 895–908
- **Performance of digital magnetic recording with equalization and offtrack interference** *IEEE Transactions on Magnetics*
Abbott, W., L., Cioffi, J., M., Thapar, H., K.
1991; 27 (1): 705–716
- **Multi-dimensional equalization for adjacent channel interference**
Wilson, S., K., Cioffi, J., M.
1991
- **Non-linear identification on the digital magnetic recording channel**
Sands, N., P., Cioffi, J., M.
1991
- **A comparison of maximum likelihood sequence detection and nonlinear decision feedback equalization on the digital magnetic recording channel**
Sands, N., P., Cioffi, J., M.
1991
- **A decision feedback equalizer for multiple-head digital magnetic recording**
Voois, P., A., Cioffi, J., M.
1991
- **SPECTRAL SHAPING FOR PEAK DETECTION EQUALIZATION** *1990 INTERNATIONAL MAGNETICS CONF (1990 INTERMAG)*
Thapar, H. K., Sands, N. P., ABBOTT, W. L., Cioffi, J. M.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.1990: 2309–11
- **THE FAST ADAPTIVE ROTORS RLS ALGORITHM** *IEEE TRANSACTIONS ON ACOUSTICS SPEECH AND SIGNAL PROCESSING*
Cioffi, J. M.
1990; 38 (4): 631-653
- **Fast echo canceller initialization method for the CCITT V.32 modem** *IEEE Transactions on Communications*
Cioffi, J., M.
1990; 38 (5): 629–638

-
- **A COMPUTATIONALLY EFFICIENT ADAPTIVE TRANSCEIVER FOR HIGH-SPEED DIGITAL SUBSCRIBER LINES** *INTERNATIONAL CONF ON COMMUNICATIONS - COMMUNICATIONS : FOUNDATION FOR THE 21ST CENTURY (ICC 90)*
Chow, J. S., Tu, J. C., Cioffi, J. M.
I E E E.1990: 1750–1754
 - **USING DECISION FEEDBACK EQUALIZATION AND CONVOLUTIONAL-CODES TO IMPROVE PERFORMANCE IN SATURATION RECORDING CHANNELS** *24TH ASILOMAR CONF ON SIGNALS, SYSTEMS AND COMPUTERS*
ABBOTT, W. L., Cioffi, J. M.
MAPLE PRESS.1990: 687–690
 - **TIMING RECOVERY FOR ADAPTIVE DECISION FEEDBACK EQUALIZATION OF THE MAGNETIC STORAGE CHANNEL** *CONF AND EXHIBITION ON TELECOMMUNICATIONS (GLOBECOM 90)*
ABBOTT, W. L., Cioffi, J. M.
I E E E.1990: 1794–1799
 - **A HIGH-SPEED ADAPTIVE EQUALIZER FOR MAGNETIC DISK DRIVES** *1990 INTERNATIONAL CONF ON ACOUSTICS, SPEECH AND SIGNAL PROCESSING (ICASSP 90)*
ABBOTT, W. L., BEDNARZ, P. S., Fisher, K. D., Cioffi, J. M.
I E E E.1990: 929–932
 - **CHANNEL CODING FOR BINARY RECORDING WITH INTERSYMBOL INTERFERENCE** *INTERNATIONAL CONF ON COMMUNICATIONS - COMMUNICATIONS : FOUNDATION FOR THE 21ST CENTURY (ICC 90)*
ABBOTT, W. L., Cioffi, J. M.
I E E E.1990: 1712–1716
 - **COMPLEXITY ISSUES IN RAM-DFE DESIGN FOR MAGNETIC DISK DRIVES** *1990 INTERNATIONAL CONF ON COMPUTER DESIGN : VLSI IN COMPUTERS AND PROCESSORS (ICCD 90)*
BEDNARZ, P. S., ABBOTT, W. L., Fisher, K. D., Cioffi, J. M.
I E E E, COMPUTER SOC PRESS.1990: 215–219
 - **A COMPARISON OF RUN-LENGTH-LIMITED CODES FOR EQUALIZED PEAK DETECTION** *24TH ASILOMAR CONF ON SIGNALS, SYSTEMS AND COMPUTERS*
Sands, N. P., Thapar, H. K., Cioffi, J. M.
MAPLE PRESS.1990: 682–686
 - **Coding techniques to mitigate dispersion-induced ISI in optical data transmission**
Swenson, N., L., Cioffi, J., M.
1990
 - **Combined equalization and coding with minimum mean square vector coding**
Cioffi, J., M., Chow, J., S., Tu, J., C.
1990
 - **A computationally efficient adaptive transceiver for high-speed digital subscriber lines**
Chow, J., S., Tu, J., C., Cioffi, J., M.
1990
 - **Timing recovery for adaptive decision feedback equalization of the magnetic storage channel**
Abbott, W., L., Cioffi, J., M.
1990
 - **Channel coding for binary recording with intersymbol interference**
Abbott, W., L., Cioffi, J., M.
1990
 - **A landing algorithm for the concatenation of coset codes with multichannel modulation methods**
Tu, J., C., Cioffi, J., M.
1990
 - **Using Decision Feedback Equalization and Convolutional Codes to Improve Performance in Saturation Recording Channels**
Abbott, W., L., Cioffi, J., M.

1990

- **Combined equalization and coding with finite-length decision feedback equalization**
Cioffi, J., M., Algoet, P., H., Chow, P., S.
1990
- **Fast adaptive ROTOR's RLS algorithm** *IEEE Transactions in Acoustics, Speech and Signal Processing*
Cioffi, J., M.
1990; 38 (4): 631–653
- **A comparison of run-length-limited codes for equalized peak detection**
Sands, N., P., Thapar, H., K., Cioffi, J., M.
1990
- **On the Combination of Modulation (Equalization) and Coding in Saturation Recording** *ACCESS*
Thapar, H., Cioffi, J., M., Abbott, W., L., Fisher, K.
1990; IV (1): 1–2
- **Spectral shaping for peak detection equalization** *IEEE Transactions on Magnetics*
Thapar, H., K., Sands, N., P., Abbott, W., L., Cioffi, J., M.
1990; 26 (5): 2309–2311
- **The Fast Householder Filters RLS Adaptive Filter**
Cioffi, J., M.
1990
- **Complexity issues in RAM-DFE design for magnetic disk drives**
Abbott, W., L., Bednarz, P., S., Fisher, K., D., Cioffi, J., M.
1990
- **Achieving the cutoff rate on communications channels**
Aslanis, J., T., Cioffi, J., M.
1990
- **A programmable parallel processor architecture for Viterbi detection**
Lou, H., L., Cioffi, J., M.
1990
- **Adaptive equalization in magnetic-disk storage channels** *IEEE Communications Magazine*
Cioffi, J., M., Abbott, W., L., Thapar, H., K., Melas, C., M., Fisher, K., D.
1990; 28 (2): 14–29
- **MODELING THIN-FILM STORAGE CHANNELS** *IEEE TRANSACTIONS ON MAGNETICS*
Fisher, K., Cioffi, J., Thapar, H.
1989; 25 (5): 4081–4083
- **Modeling thin-film storage channels** *IEEE Transactions on Magnetics*
Fisher, K., Cioffi, J., M., Thapar, H.
1989; 25 (5): 4081–4083
- **COMBINED EQUALIZATION AND CODING ON THE BINARY LORENTZIAN STORAGE CHANNEL** *23RD ASILOMAR CONF ON SIGNALS, SYSTEMS AND COMPUTERS*
ABBOTT, W. L., Cioffi, J. M.
MAPLE PRESS. 1989: 471–475
- **A COMPARISON OF LEAST-SQUARES AND GRADIENT ADAPTIVE EQUALIZATION FOR MULTIPATH-FADING IN WIDE-BAND DIGITAL MOBILE RADIO** *IEEE GLOBAL TELECOMMUNICATIONS CONF AND EXHIBITION : COMMUNICATIONS TECHNOLOGY FOR THE 1990S AND BEYOND (DALLAS GLOBECOM 89)*
ZIEGLER, R. A., Cioffi, J. M.
I E E E. 1989: 102–106

- **ON THE COMBINATION OF EQUALIZATION AND CODING IN SATURATION RECORDING** *1989 INTERNATIONAL CONF ON COMMUNICATIONS : WORLD PROSPERITY THROUGH COMMUNICATIONS (BOSTONICC/89)*
Cioffi, J. M., Abbott, W., Fisher, K., Thapar, H.
I E E E.1989: 1643–1647
- **A BLOCK PROCESSING METHOD FOR DESIGNING HIGH-SPEED VITERBI DETECTORS** *1989 INTERNATIONAL CONF ON COMMUNICATIONS : WORLD PROSPERITY THROUGH COMMUNICATIONS (BOSTONICC/89)*
Thapar, H. K., Cioffi, J. M.
I E E E.1989: 1096–1100
- **CHANNEL EQUALIZATION METHODS FOR MAGNETIC STORAGE** *1989 INTERNATIONAL CONF ON COMMUNICATIONS : WORLD PROSPERITY THROUGH COMMUNICATIONS (BOSTONICC/89)*
ABBOTT, W. L., Cioffi, J. M., Thapar, H. K.
I E E E.1989: 1618–1622
- **AN ADAPTIVE DFE FOR STORAGE CHANNELS SUFFERING FROM NONLINEAR ISI** *1989 INTERNATIONAL CONF ON COMMUNICATIONS : WORLD PROSPERITY THROUGH COMMUNICATIONS (BOSTONICC/89)*
Fisher, K., Cioffi, J., MELAS, C. M.
I E E E.1989: 1638–1642
- **Trellis coding with M-ary MSK constraints**
Bims, H., V, Cioffi, J., M.
1989
- **Channel equalization methods for magnetic storage**
Abbott, W., L., Cioffi, J., M., Thapar, H., K.
1989
- **Capacity and cutoff rate of the digital subscriber loop with near end crosstalk noise**
Aslanis, J., T., Cioffi, J., M.
1989
- **Trellis Coding for the Magnetic Storage Channel**
Abbott, W., L., Cioffi, J., M.
1989
- **Precoding for block signalling and shaped signal sets**
Kasturia, S., Cioffi, J., M.
1989
- **Frequency offset tracking for the Nyquist voiceband data echo canceller**
Cioffi, J., M.
1989
- **Data transmission with mean-square partial response**
Cioffi, J., M., Dudevoir, G., P.
1989
- **Comparison of least squares and gradient adaptive equalization for multipath fading in wideband digital mobile radio**
Ziegler, R., A., Cioffi, J., M.
1989
- **An Adaptive DFE for Storage Channels Suffering from Nonlinear ISI, invited paper**
Fisher, K., D., Cioffi, J., M., Melas, C., M.
1989
- **Multidimensional signal set design for transmission over parallel channels**
Fortier, P., Ruiz, A., Cioffi, J., M.
1989

- **Modelling thin-film storage channels**
Fisher, K., D., Cioffi, J., M.
1989
- **On the combination of equalization and coding in saturation recording**
Cioffi, J., M., Abbott, W., L., Fisher, K., D., Thapar, H., K.
1989
- **Crosstalk-limited performance of a computationally efficient multichannel transceiver for high rate digital subscriber lines**
Tu, J., C., Chow, J., S., Dudevoir, G., P., Cioffi, J., M.
1989
- **Combined equalization and coding on the binary lorentzian storage channel**
Abbott, W., L., Cioffi, J., M.
1989
- **Combined equalization and coding for T1 data rates on carrier serving area subscriber loops**
Dudevoir, G., P., Chow, J., S., Cioffi, J., M., Kasturia, S.
1989
- **Block processing method for designing high-speed Viterbi detectors**
Thapar, H., K., Cioffi, J., M.
1989
- **OFFTRACK INTERFERENCE AND EQUALIZATION IN MAGNETIC RECORDING** *IEEE TRANSACTIONS ON MAGNETICS*
ABBOTT, W. L., Cioffi, J. M., Thapar, H. K.
1988; 24 (6): 2964-2966
- **AN UNWINDOWED RLS ADAPTIVE LATTICE ALGORITHM** *IEEE TRANSACTIONS ON ACOUSTICS SPEECH AND SIGNAL PROCESSING*
Cioffi, J. M.
1988; 36 (3): 365-371
- **Unwindowed RLS Adaptive Lattice Algorithm.** *IEEE Transactions in Acoustics, Speech and Signal Processing*
Cioffi, J., M.
1988; 36 (3): 365-371
- **Offtrack interference and equalization in magnetic recording** *IEEE Transactions on Magnetics*
Abbott, W., L., Cioffi, J., M., Thapar, H., K.
1988; 24 (6): 2964-2966
- **Spectrally constrained codes for high rate ISDN subscriber loop.**
Kasturia, S., Dudevoir, G., P., Cioffi, J., M., Ruiz, A.
1988
- **Precision-efficient use of block adaptive algorithms in data-driven echo cancellers.**
Cioffi, J., M.
1988
- **An Adaptive Decision Feedback Equalizer for Mitigating Nonlinear ISI in Thin-film Storage Channels, invited paper**
Fisher, K., D., Cioffi, J., M., Melas, C., M.
1988
- **High-Speed Systolic Implementation of Fast QR Adaptive Filters.**
Cioffi, J., M.
1988
- **A Survey Of Adaptive Equalization For Magnetic-disk Storage Channels**
Cioffi, J., M., Abbott, W., L., Fisher, K., D.
1988

- **Vector coding with decision feedback equalization for partial response channels**
Kasturia, S., Cioffi, J., M.
1988
- **Vector coding for partial response channels**
Aslanis, J., T., Kasturia, S., Dudevoir, G., P., Cioffi, J., M.
1988
- **Pipelining the Decision Feedback Equalizer, invited paper**
Cioffi, J., M., Fortier, P., Kasturia, S.
1988
- **Offtrack Interference and Equalization in Magnetic Recording**
Abbott, W., L., Cioffi, J., M., Thapar, H., K.
1988
- **Frequency Designed Coset Codes for Spectrally Constrained Channels**
Ruiz, A., Cioffi, J., M., Kasturia, S.
1988
- **A Fast Echo Canceller Initialization Method for the CCITT V.32 Modem, invited paper**
Cioffi, J., M.
1987
- **Pipelined Fast QR-RLS Structure for High-speed VLSI Implementation of Adaptive Filters.**
Cioffi, J., M.
1987
- **Limited Precision Effects in Adaptive Filtering.**
Cioffi, J., M.
1987
- **Frequency Domain Approach to Combined Spectral Shaping and Coding.**
Ruiz, A., Cioffi, J., M.
1987
- **Fast Transversal Filter for Adaptive Line Enhancement.**
Slock, D., T. M., Cioffi, J., M., Kailath, T.
1987
- **Fast QR/frequency-domain RLS Adaptive Filter.**
Cioffi, J., M.
1987
- **Continuous-Time Least-squares Fast Transversal Filters.**
Lev-Ari, H., Cioffi, J., M., Kailath, T.
1987
- **A Fast Echo Canceller Initialization Method for the CCITT V.32 Modem, invited paper**
Cioffi, J., M.
1987
- **LEAST-SQUARES STORAGE-CHANNEL IDENTIFICATION *IBM JOURNAL OF RESEARCH AND DEVELOPMENT***
Cioffi, J. M.
1986; 30 (3): 310-320
- **Covariance RLS Lattice for Adaptive Filtering.**
Cioffi, J., M.
1986

- **Evaluating the Performance of Maximum Likelihood Sequence Detection for the Magnetic Recording Channel**
Cioffi, J., M., Melas, C., M.
1986
- **Windowed Fast Transversal Filters Adaptive Algorithms with Normalization.** *IEEE Transactions in Acoustics, Speech and Signal Processing*
Cioffi, J., M., Kailath, T.
1985; ASSP-33 (3): 607–625
- **EFFECTS OF BIASES ON DIGITALLY IMPLEMENTED DATA-DRIVEN ECHO CANCELERS** *AT&T TECHNICAL JOURNAL*
Cioffi, J. M., Werner, J. J.
1985; 64 (1): 115-138
- **Block-processing FTF Adaptive Algorithm.** *in IEEE Transactions on Acoustics, Speech, and Signal Processing*
Cioffi, J., M.
1985; ASSP-34 (1): 77–90
- **Effects of Biases on Digitally Implemented Data-driven Echo Cancellers.** *AT&T Technical Journal*
Cioffi, J., M., Werner, J., J.
1985; 64 (1): 115–138
- **The Block-Processing FTF Adaptive Algorithm**
Cioffi, J., M.
1985
- **Multidimensional Trellis Codes for Areal Density Gains**
Cioffi, J., M.
1985
- **When Do I Use An RLS Adaptive Filter#?**
Cioffi, J., M.
1985
- **An Efficient, RLS, Data-Driven Echo Canceller for Fast Initialization of Full-Duplex Data Transmission** *IEEE Transactions on Communications*
Cioffi, J., M., Kailath, T.
1985; 33 (7): 601–611
- **Efficient, RLS, Data-Driven Echo Canceller for Fast Initialization of Full-duplex Data Transmission.**
Cioffi, J., M., Kailath, T.
1985
- **Least-squares adaptive lattice and transversal filters: A unified geometric theory** *IEEE Transactions on Information Theory*
Lev-Ari, H., Kailath, T., Cioffi, J., M.
1984; 30 (2): 222–236
- **A Classification of Fast, Fixed-Order, RLS Algorithms**
Cioffi, J., M., Kailath, T.
1984
- **Fast, Recursive-least-squares Transversal Filters for Adaptive Filtering.** *IEEE Transactions in Acoustics, Speech and Signal Processing*
Cioffi, J., M., Kailath, T.
1984; ASSP-32 (2): 304–337
- **Efficient, Recursive-Least-Squares, Fractionally Spaced Equalizer Using Intersymbol Interpolation.**
Cioffi, J., M., Kailath, T.
1984
- **Efficient Exact-Least-squares Fractionally Spaced Equalizer Using Intersymbol Interpolation.** *IEEE Journal on Selected Areas in Communications*
Cioffi, J., M., Kailath, T.
1984; SAC-2 (5): 743–756

- **ECG Enhancement by Adaptive Cancellation of Electrosurgical Interference.** *IEEE Transactions Biomedical Engineering*
Yelderman, M., Widrow, B., Cioffi, J., M., Hesler, E., Leddy, J., A.
1983; BME-30 (7): 392–398
- **Fast, Fixed-order, Least-squares Algorithms for Adaptive Filtering.**
Cioffi, J., M., Kailath, T.
1983