Expert/Consultant Curriculum Vitae

Professor Zhi Ding

Ph.D. and Fellow of IEEE

Expertise

- Wireless Communication Systems
- Cellular Wireless (2G, 3G, 4G, 5G)
- Communication Network Protocols
- Multi-Antenna Technologies
- WLAN (WiFi, Bluetooth)
- xDSL Internet Services
- DOCSIS Modems
- Optical Networks

Professional Summary

- Professor of major US universities for over 32 years.
- *Consulted for multiple major technology companies*
- Worked as expert on multiple patent
- infringement cases.
- Conducted research works on Communications and Signal Processing for over 30 years.
- Supervised over 30 PhD students.
- Author of more than 200 journal papers and 2 books on communication technologies.

Dr. Zhi Ding has been a professor of electrical engineering at major US universities for 32 years. Since 1995, he has consulted for both engineering companies such as Nortel, Analog Devices, Intel, and worked as expert for major law firms from US, UK, China, and Canada including Kirkland & Ellis, WilmerHale, Quinn Emanuel, Fish & Richardson, Sheppard Mullin, Sidley Austin, Mayer Brown, Venable, and Finnegan, on multiple technical and patent infringement cases. He has been conducting research works on wireless communications and signal processing since 1984. He has supervised over 30 PhD students. He is an author of 200 journal papers and 2 technical books on communication technologies. He has taught classes that cover the fundamentals of signal detection, communications, and systems.

Dr. Ding currently holds the position of Distinguished Professor at the University of California, where he was also the Child Family Professor of Engineering and Entrepreneurship in 2009-2014. He served as the steering committee chair of the IEEE Transactions on Wireless Communications. He was elevated to Fellow of IEEE in 2002 by the IEEE Signal Processing Society. He also served as the Technical Program Chair of the IEEE Globecom 2006 (the flagship conference of the IEEE Communications Society), Dr. Ding is an eminent scholar and expert of wireless technologies AND signal processing. He received the IEEE Communications Society's 2012 TC Recognition Award and the 2020 Education Award.

Digital Global Systems
Exhibit 1004

Intellectual Property Dispute Consulting:

Past Client	Past Engagement
Kirkland & Ellis LLP	2007 (Intel v. WiLAN)
	2008 (Cisco, Motorola, etc., v. R.),
	2008 (Apple v. N.)
	2009 (Cisco v. WiAV)
	2009 (Apple v. P.)
	2009 (Cisco v. M.)
	2010 (Netgear v. R.)
	2011 (Intel v. E.)
	2011 (Cisco v. M.)
	2011 (Cisco, Motorola v. I.)
	2011 (Netgear v. E.)
	2013 (Alcatel Lucent matter)
	2015 (Intel "project Impala")
	2020 (Xiaomi Global)
	2021 (Samsung v. E.)
	2023 (TP v. N.)
Wilmer Cutler Pickering Hale, & Dorr, LLP	2009 (Apple v. N.)
	2011 (Apple v. S.)
	2013 (Apple v. A.)
	2015 (Apple v. E.)
	2018 (Unified matter)
	2019 (Apple v. O.)
	2023 (Z. v. N.)
	2023 (Apple v. Lionra)
Fish and Richardson, LLP	2014 (Marvell v. I.)
	2018 (NEC v. X.)
	2020 (DISH v. T.)
	2020 (Huawei SEP)
	2020 (Samsung v. E.)
	2021 (LG Electronics, Dell v. N.)
	2021 (Quectel v. P.)
	2021 (Apple v. E.)
	2022 (Apple v. S.)
	2022 (LG Electronics v. C.)
	2023 (Dish v. E.)
	2023 (G Project)
Kaye Scholer LLP	2012 (Timer Warner+Ceres+Atlanta Broadband Finance v. K.)
Bridges and Mavrakakis, LLP	2011(Apple matter)
	2014 (Apple v. C.)

	2015 (Marvell "IP evaluation matter")
Sterne, Kessler, Goldstein & Fox, LLC	2014 (Marvell, MediaTek v. B.)
	2019 (Volkswagen v. C.)
	2020 (Apple v. S.)
Bramson, Plutzik, Mahler & Birkhaeuser	2013 (Karim v. H.)
Gibson, Dunn & Crutcher, LLP	2014 (AT&T v. I)
Quinn Emanuel	2014 (Canon v. I.)
	2023 (Z. v. E.)
Norton Rose Fulbright US LLP	2015 (Qualcomm v. B.)
	2018 (Qualcomm v. A.)
	2021 (NXP v. Me.)
	2023 (NXP v MI.)
Sheppard, Mullin, Richter, and Hampton, LLP	2015 (TLC v. E.)
	2017 (ZTE v. H.)
	2018 (HTC v. I.)
	2019 (Motorola v. U.)
	2019 (U-Blox AG v. I.)
	2019 (Continental v. A.)
	2019 (Toyota matter)
	2020 (Oppo v. S.)
	2021 (HTC v. S.)
Duane Morris	2015 (Comcast, Cox, Time Warner, Verizon v. T.)
Rothwell, Figg, Ernest, & Manbeck, P.C.	2016 (LG Electronics v. O.)
Mayer Brown LLP	2016 (LG Electronics v. N.)
Sidley Austin, LLP	2016 (Huawei v. S.)
	2018 (Huawei v. O.)
Irell & Manella, LLP	2016 (Juniper v. M.)
	2021 (NXP v. M.)
Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P	2017 (LGE v. BLU)
	2017 (Sol IP)
Arnold, Porter, Kaye, and Scholer	2017 (Charter v. S.)
	2021 (Samsung v. X.)
Venable, LLP	2017 (Verizon v. S.)
Pillsbury LLP	2017 (ZTE v. H.)
Alston, Bird, LLP	2018 (ASUSTeK v. H.)
Gibson, Dunn & Crutcher, LLP	2019 (AT&T v. S.)
Allen & Overy, LLP, UK	2019 (Huawei v. Conversant.)
Erise IP	2019 (Apple v. I.) 2022 (Apple v. L.)
Xiaomi (China)	2020 (Siemens)
Munger Tolles & Olson, LLP (Tesla)	2021 (Tesla v. O.)
	2023 (G. v. U.)
Orrick, Herrington, & Sutcliffe, LLP	2021 (Canon v. W.)
Saikrishna & Associates (India)	2019 (Xiaomi v. Ericsson)

	2020 (OPPO v. NOKIA)
	2022 (vivo v. Nokia)
Continental	2022 (Continental v. N.)
Kelley Dryer	2022 (Keep Truckin v. F.)
Haynes Boone	2022 (Apple v. T.)
Quinsumbing Torres (Philippines)	2022 (vivo v. N.)
Biro Oktroi Roosseno (Indonesia)	2022 (vivo v. N.)
Paul Hastings	2022 (Samsung v. G.)
Cabello Hall Zinda, PLLC	2023 (K. v. E.)
DLA Piper	2023 (D. & M. v. Ozmo)

Expert Testifying and Depositions (13 Trials and 18 Depositions)

Clients	Deposition/Testifying Experience
Bramson, Plutzik, Mahler & Birkhaeuser LLP	2013: ***Deposition*** on Case No. CV 12-05240 PJH Nad Karim v. Hewlett Packard, Co. UNITED STATES NORTHERN DISTRICT COURT OF CALIFORNIA. Settlement ordered Jan. 18, 2017.
Fish and Richardson	2015 (Feb): ***Deposition*** for Marvell. US PTAB *Inter Partes* Review IPR2014-00548 Marvell Semiconductor, Inc. v. Intellectual Ventures I LLC
	2015 (August): ***Deposition*** for Marvell. US PTAB *Inter Partes* Review IPR2014-00548 Marvell Semiconductor, Inc. v. Intellectual Ventures I LLC
Norton, Rose, Fulbright, US, LLP	2016 (April): ***Deposition*** for Qualcomm. US PTAB *Inter Partes* Review cases IPR2015-10577, IPR2015-10580, IPR2015-10581 Qualcomm Inc. v Bandspeed Inc.
Sheppard, Mullin, Richter, and Hampton, LLP	2016 (May): ***Deposition*** for in *TCL Communication Technology Holdings, LTD., et al. v. Ericsson, et al.,* Case No. 8:14-cv-341 (C. D. CA).
	2017 (Feb): **Testified at C.D. California** bench trial.
Sidley Austin, LLP	2016 (December): **Testified at** trial involving Huawei Technologies, Co. Ltd v. Samsung regarding FRAND licensing disputes in Shenzhen Court, P.R. China.
	2018 (June): ***Deposition*** for N.D. CA on IP matter concerning Huawei Technologies, Co. Ltd v. Samsung.
	2018 (December): **Testified at** trial involving Huawei Technologies, Co. Ltd v. Samsung regarding FRAND licensing disputes in Beijing Court of Intellectual Properties, P.R. China.
Mayer Brown LLP	2017 (January): **Testified during tribunal proceeding** for LG Electronics, Inc. in standard essential patent (SEP) licensing dispute of Nokia Technologies, Ltd. *v*. LG Electronics, Inc. During arbitration hearing in Paris, France.

Venable LLP	2017 (October): ***Deposition*** as expert witness for Verizon Services Corp. in Case No. 2:16-CV-588-WCB (E. D. TX) on US Patent disputes.
Pillsbury LLP	2018 (Feb): ***Deposition*** (E. D. Texas Case No. 5:16-cv-00179-RWS)
	2018 (June): **Testified at E. D. Texas** (Texarkana) jury trial (Case No. 5:16-cv-00179-RWS).
Allen & Overy LLP UK	2019 (April) **Testified at** trial involving Huawei Technologies, Co. Ltd v. Conversant regarding FRAND licensing disputes in Nanjing Intermediate Court, P.R. China.
Sidley Austin LLP, US	2019 (Sept.) **Testified at** trial involving Huawei Technologies, Co. Ltd v. PanOptics, regarding FRAND licensing disputes in Shenzhen Intermediate Court, P.R. China.
Sheppard, Mullin, Richter, and Hampton, LLP	2019 (Dec. 3rd): ***Deposition*** for HTC and Apple in *HTC Corporation, HTC America, Inc., and Apple Inc. v. INVT SPE LLC,* Case Nos. IPR2018-01555 and IPR2018-01581.
Sterne, Kessler, Goldstein & Fox, LLC	2020 (Feb.): ***Deposition*** for Volkswagen Group of America, In. v. Carucel Investments, L.P. Case Nos. IPR2019-01573 and IPR2019-01101.
Jincheng Tongda & Neal, LLP	2021 (June) **Testified at** trial involving TCL. v. Ericsoon, regarding FRAND licensing disputes in Shenzhen Intermediate Court, P.R. China.
Orrick, Herrington, & Sutcliffe, LLP	2021 (October): ***Deposition*** for Canon, Inc, in Canon, v. WSOU Investments, LLC d/b/a/ Brazos Licensing, W.D. Texas, Case No. 6:20-cv-980.
Fish & Richardson, P.C.	2021 (November) 1st ***Deposition*** for Petitioner IPR 2021-00560 in Quectel v. Koninklijke Philips N.V.
	2021 (December) 1st ***Deposition*** for Petitioner on IPR 2021-00563 Proceeding in Quectel v. Koninklijke Philips N.V.
	2022 (March 31) 2nd ***Deposition*** for Petitioner IPR 2021-00560 in Quectel v. Koninklijke Philips N.V. (028) (-)
	2022 (April 1) 2nd ***Deposition*** for Petitioner on IPR 2021-00563 Proceeding in Quectel v. Koninklijke Philips N.V. (+)
	2022 (Oct. 28) ***Deposition*** for Petitioner on IPR 2022-00339 in Apple v. Ericsson.
	2023 (Nov. 18) ***Deposition*** for Petitioner on IPR 2023-00496 Proceeding (Apple).
Jauar Jahja and Partners (Indonesia)	2022 (April 25) **Testified** at trial involving OPPO v. Nokia regarding one patent disputes at Court in Jakarta, Indonesia. ***Successful denial of temporary injunction.*** 2022 (April 26) **Testified** at trial involving OPPO v. Nokia regarding another patent dispute at Court in Jakarta, Indonesia. ***Successful denial of temporary injunction.***
Quinsambing & Torres (Philippines)	2022 (September) **Testified** on site at trial involving vivo v. Nokia regarding patent disputes in Regional Trial Court in Manila, the Philippines.

	Successful denial of temporary injunction.
Orrick, Herrington, & Sutcliffe, LLP	2021 (Oct. 12) ***Deposition*** Western D. of Texas cas: 6:20-cv-00980-ADA (Canon)
Arnold, Porter, Kaye, and Scholer	2022 (Dec. 30) ***Deposition*** for Petitioner on IPR 2022-00613 Proceeding (Samsung)
Biro Oktroi Roosseno (Indonesia)	2023 (Jan. 4) **Testified** online at trial involving vivo v. Nokia regarding patent disputes at Court in Jakarta, Indonesia. ***Successful denial of temporary injunction.*** 2023 (Feb. 1) **Testified** on site at trial involving vivo v. Nokia regarding patent disputes at Court in Jakarta, Indonesia. ***Successful denial of temporary injunction.***
Paul Hastings	2023 (June 22) ***Deposition*** for Petitioner on IPR 2022-01598 Proceeding (Samsung)
	2023 (Sept. 23) ***Deposition*** for Petitioner on IPR 2023-00171 Proceeding (Samsung)
Kirkland & Ellis LLP	2024 (May 31) ***Deposition*** for Petitioner on IPR 2023-01469 Proceeding (TP Link)

IPR Opinions	**Expert Opinions (Excluding links before 2019 for brevity):**
Older IPR Cases	IPR2014-00547 IPR2014-00548 IPR2014-01562 IPR2015-00237 IPR2015-00314 IPR2015-00315 IPR2015-00316 IPR2015-00531 IPR2015-01577 IPR2015-01580 IPR2015-01581 IPR2015-01582 IPR2016-00620 IPR2016-00623 IPR2018-00237 IPR2018-01160 IPR2018-01190 IPR2018-01555 IPR2018-01581 IPR2019-00070
Recent IPR Declarations	IPR2019-01573 Expert Declaration to the Patent Trial and Appeal Board. Instituted (2020-01-22); Final Decision: Unpatentable (2020-11-20) IPR2019-01105 Expert Declaration to the Patent Trial and Appeal Board. Instituted (2019-12-02); Final Decision: Unpatentable (2020-11-20)

	IPR2019-01101 Expert Declaration to the Patent Trial and Appeal Board. Instituted (2019-12-02); Final Decision: Unpatentable (2020-11-20) IPR2020-00038 Expert Declaration to the Patent Trial and Appeal Board (Filed 2019-10-11); Institution Decision: (2020-04-13). IPR2021-00560 Expert Declaration to the Patent Trial and Appeal Board. Instituted (2021-09-13); Final Decision: (2022-09-09) IPR2021-00563 Expert Declaration to the Patent Trial and Appeal Board. Instituted (2021-09-15); Final Decision: Unpatentable (2022-9-13) IPR2021-00587 Expert Declaration to the Patent Trial and Appeal Board. Filed (2021-02-26); Withdrawn. IPR2021-00644 Expert Declaration to the Patent Trial and Appeal Board. Filed (2021-03-12); Settled. IPR2021-00683 Expert Declaration to the Patent Trial and Appeal Board. Filed (2021-03-19); Withdrawn. IPR2021-01468 Expert Declaration to the Patent Trial and Appeal Board. Filed (2021-09-01). IPR2021-01486 Expert Declaration to the Patent Trial and Appeal Board. Filed (2021-09-16). IPR2022-00339 Expert Declaration to the Patent Trial and Appeal Board. Instituted (2022-08-22); Settlement (2022-12-20). IPR2022-00348 Expert Declaration to the Patent Trial and Appeal Board, Filed (2022-02-15). IPR2022-00349 Expert Declaration to the Patent Trial and Appeal Board, Filed (2022-02-15), Settled. IPR2022-00616 Expert Declaration to the Patent Trial and Appeal Board, Filed (2022-02-18), Withdrawn. IPR2022-00619 Expert Declaration to the Patent Trial and Appeal Board, Filed (2022-02-25).

	IPR2022-00613 Expert Declaration to the Patent Trial and Appeal Board. Instituted (2022-10-20); Settled. IPR2022-01512 Expert Declaration to the Patent Trial and Appeal Board. Filed (2022-09-09); Instituted (2023-05-15). IPR2022-01598 Expert Declaration to the Patent Trial and Appeal Board. Filed (2022-10-04); Instituted (2023-04-04). IPR2023-00136 Expert Declaration to the Patent Trial and Appeal Board. Filed (2022-11-30); Instituted (2023-05-22). IPR2023-00151 Expert Declaration to the Patent Trial and Appeal Board; Filed (2022-11-30); Instituted (2023-06-09). IPR2023-00174 Expert Declaration to the Patent Trial and Appeal Board, Filed (2022-11-30); Instituted (2023-05-19). IPR2023-00171 Expert Declaration to the Patent Trial and Appeal Board. Filed (2022-11-08); Instituted (2023-05-31). IPR2023-00441 Expert Declaration to the Patent Trial and Appeal Board, Filed (2023-01-05); Instituted (2023-08-03). IPR2023-00496 Expert Declaration to the Patent Trial and Appeal Board, Filed (2023-01-20); Institute (2023-08-21). IPR2023-00525 Expert Declaration to the Patent Trial and Appeal Board, Filed (2023-07-10); Institute (2023-10-02). IPR2023-00644 Expert Declaration to the Patent Trial and Appeal Board, Filed (2023-03-07); Institute (2023-10-11). IPR2023-00645 Expert Declaration to the Patent Trial and Appeal Board, Filed (2023-03-22); Institute (2023-10-11). IPR2023-00665 Expert Declaration to the Patent Trial and Appeal Board, Filed (2023-03-22) IPR2023-00720 Expert Declaration to the Patent Trial and Appeal Board, Filed (2023-03-16). IPR2023-00721 Expert Declaration to the Patent Trial and Appeal Board, Filed (2023-03-16); Institute (2023-10-11).

	IPR2023-00796 IPR2023-01393 Expert Declaration to the Patent Trial and Appeal Board. Instituted (2023-11-13). IPR2023-01060 Expert Declaration to the Patent Trial and Appeal Board, Filed (2023-09-07); Instituted (2024-01-16). IPR2023-01393 Expert Declaration to the Patent Trial and Appeal Board, Filed (2023-09-07). IPR2023-01400 Expert Declaration to the Patent Trial and Appeal Board, Filed (2023-09-07); Instituted (2024-03-08). IPR2023-01403 Expert Declaration to the Patent Trial and Appeal Board; Instituted (2024-03-06). IPR2023-01429 Expert Declaration to the Patent Trial and Appeal Board, Filed (2023-09-18). IPR2023-01469 Expert Declaration to the Patent Trial and Appeal Board, Instituted (2024-04-02). IPR2024-00125 Expert Declaration to the Patent Trial and Appeal Board, Filed (2023-10-30). Settled. IPR2024-00883 Expert Declaration to the Patent Trial and Appeal Board, Filed (2024-05-01).

Employment History

From:	2000	**University of California at Davis**
To:	Present	Davis, CA
	Position:	*Professor* (2000-2020) and *Distinguished Professor* (2020-)*, Department of Electrical and Computer Engineering*

From:	01/1999	**University of Iowa**
To:	09/2000	Iowa City, IA
	Position:	*Assoc. Professor, Department of Electrical and Computer Engineering*

From:	01/1997	**Hong Kong University of Science and Technology**
To:	12/1997	Hong Kong
	Position:	*Visiting Associate Professor, Department of Electrical and Electronic Engineering*

From:	09/1995	**Auburn University**
To:	12/1998	Auburn, AL
	Position:	*09/1995-12/1998: Associate Professor, Department of Electrical and Computer Engineering* *09/1990-08/1995: Assistant Professor, Department of Electrical and Computer Engineering*

From:	08/1993	**Australian National University**
To:	09/1993	Canberra, Australia
	Position:	*Visiting Research Fellow, Faculty of Information Technology and Engineering*

From:	06/1993	**US Air Force Wright Laboratory**
To:	08/1993	Eglin AFB, Florida
	Position:	*Faculty Research Associate, Armament Directorate*

From:	06/1992	**NASA Lewis Research Center**
To:	08/1992	Cleveland, OH
	Position:	*Visiting Faculty Research Fellow*

From:	08/1987	**Cornell University**
To:	08/1990	Ithaca, NY
	Position:	*Research Assistant*

From:	09/1984	**University of Toroto**
To:	08/1987	Toronto, Ontario, Canada
	Position:	*Research Assistant*

Technical Consulting

Consulted for multiple major technology companies, aside from IP litigation related matters.

Patents (Granted and/or Licensed)

Patent Number	Date Issued	Title
US 6,396,885	Mar.28, 2002	Co-channel interference reduction in wireless communications systems
US 6,463,099	Oct.8, 2002	Blind channel equalizers and methods of blind channel equalization (Licensed)

US 7,379,513	Mar. 20, 2008	Channel estimation in CDMA communications systems using both lower power pilot channel and higher power date channel
US 9,554,388	Jan. 24, 2017	Method and apparatus of resource sharing for device-to-device and cellular communications
US 10,623,230	Apr. 14, 2020	Trans-layer robust header-compression technique
US 11,019,530	May 25, 2021	Trans-layer bidirectional robust header compression system
US 11,368,940	June 21, 2022	Systems and Methods for Data transmission over Wi-Fi and LTE-U coexistence framework

Education

1990	Cornell University, Ithaca, NY	Ph.D., Electrical Engineering
1987	University of Toronto, Toronto, Canada	MS, Electrical Engineering
1982	Nanjing Institute of Technology, Nanjing, China	BS, Wireless Engineering

Publications

Books & Book Chapters

[1] B. P. Lathi and Z. Ding, *Modern Digital and Analog Communication Systems,* 5th edition, Oxford University Press, 2018.

[2] Zhi Ding and Ye Li, *Blind Equalization and Identification*, Marcel Dekker, New York, 2001.

[3] Z. Ding, "Chapter 7: Linear Predictive Algorithms for Blind Multichannel Identification," in *Signal Processing Advances in Wireless and Mobile Communications*, Vol. I: Trends in Channel Estimation and Equalization, G. B. Giannakis, Y. Hua, P. Stoica, and L. Tong (Editors), Prentice Hall, 2000.

[4] Z. Ding, "Blind Channel Identification and Equalization using Spectral Correlation Measurements: Frequency Domain Analysis," in *Cyclostationarity in Communications and Signal Processing*, William A. Gardner, Ed., pp.417-436, IEEE Press, 1993.

[5] Z. Ding, C. R. Johnson, Jr., and R. A. Kennedy, "Chapter 3: Global Convergence Issues with Linear Blind Adaptive Equalizers," in *Blind Deconvolution*, Simon Haykin, Ed., pp.60-120, Prentice-Hall, 1994.

[6] Z. Ding, "Adaptive Filters for Blind Equalization," in *IEEE DSP Handbook*, Douglas B. Williams, Ed., pp.24.1-24.17, IEEE Press, 1998.

Journal Papers

[1] Y. -C. Lin, T. -S. Lee and Z. Ding, ``Exploiting Partial FDD Reciprocity for Beam Based Pilot Precoding and CSI Feedback in Deep Learning," *IEEE Transactions on Wireless Communications,* doi: 10.1109/TWC.2023.3289929.

[2] Qi S, He M, Hoang R, Zhou Y, Namadi P, Tom B, Sandhu P, Bai Z, Chung F, Ding Z, Anderson J. ``Salinity Modeling Using Deep Learning with Data Augmentation and Transfer Learning" .*Water,* 15(13):2482, 6 July, 2023.

[3] S. Zhang, A. Wijesinghe and Z. Ding, ``RME-GAN: A Learning Framework for Radio Map Estimation based on Conditional Generative Adversarial Network" *IEEE Internet of Things Journal* 2023. doi:10.1109/JIOT.2023.3278235.

[4] Y. Ge, Q. Deng, D. Gonzalez G., Y. L. Guan and Z. Ding, ``OTFS Signaling for SCMA With Coordinated Multi-Point Vehicle Communications," *IEEE Transactions on Vehicular Technology*, doi: 10.1109/TVT.2023.3248119.

[5] H. Ma, X. Yuan, Z. Ding, D. Fan and J. Fang, "Over-the-Air Federated Multi-Task Learning via Model Sparsification, Random Compression, and Turbo Compressed Sensing," *IEEE Transactions on Wireless Communications,* doi: 10.1109/TWC.2022.3231088.

[6] Siyu Qi, Minxue He, Zhaojun Bai, Zhi Ding, Prabhjot Sandhu, Francis Chung, Peyman Namadi, Yu Zhou, Raymond Hoang, Bradley Tom, Jamie Anderson, and Dong Min Roh, "Novel Salinity Modeling Using Deep Learning for the Sacramento-San Joaquin Delta of California" in *Water* , 2022, 14(22), 3628; https://doi.org/10.3390/w14223628

[7] M. Del Rosario and Z. Ding, ``Learning-Based MIMO Channel Estimation under Practical Pilot Sparsity and Feedback Compression," in IEEE Transactions on Wireless Communications, 2022, doi: 10.1109/TWC.2022.3202750.

[8] C. Sun, X. Gao and Z. Ding, ``Optimization of Workload Balancing and Power Allocation for Wireless Distributed Computing," in IEEE Transactions on Wireless Communications, vol. 21, no. 9, pp. 7682-7695, Sept. 2022, doi: 10.1109/TWC.2022.3160493.

[9] C. -H. Hsu, C. Feres and Z. Ding, ``Wirtinger Flow for Nonconvex Blind Demixing with Optimal Step Size," in IEEE Wireless Communications Letters, 2022, doi: 10.1109/LWC.2022.3203313.

[10] Zhang, S., Deng, Q. & Ding, Z., ``Multilayer graph spectral analysis for hyperspectral images," EURASIP Journal of Adv. Signal Process, 2022, 92 (2022). doi: https://doi.org/10.1186/s13634-022-00926-8;

[11] C. Feres and Z. Ding, ``An Unsupervised Learning Paradigm for User Scheduling in Large Scale Multi-Antenna Systems," in IEEE Transactions on Wireless Communications, 2022, doi: 10.1109/TWC.2022.3215471.

[12] L. D. Chamain, S. Qi, and Z. Ding, ``End-to-End Image Classification and COmpression with variational autoencoder" IEEE Internet of Things Journal, vol. 70, 2022, doi: 10.1109/JIOT.2022.3182313.

[13] C. Feres and Z. Ding, ``A Riemannian Geometric Approach to Blind Signal Recovery for Grant-Free Radio Network Access," IEEE Transactions on Signal Processing, vol. 70, pp. 1734-1748, 2022, doi: 10.1109/TSP.2022.3159988.

[14] Q. Deng, S. Zhang and Z. Ding, ``An Efficient Hypergraph Approach to Robust Point Cloud Resampling," IEEE Transactions on Image Processing, vol. 31, pp. 1924-1937, 2022, doi: 10.1109/TIP.2022.3149225.

[15] X. Ling, B. Zhang, H. Xie, J. Wang, Z. Ding, Hash Access in Blockchain Radio Access Networks: Characterization and Optimization IEEE Internet of Things Journal, 9(11): 8053-8066, 1 June 2022 doi: 10.1109/JIOT.2021.3111915.

[16] Qi, S.; He, M.; Bai, Z.; Ding, Z.; Sandhu, P.; Zhou, Y.; Namadi, P.; Tom, B.; Hoang, R.; Anderson, J. ``Multi-Location Emulation of a Process-Based Salinity MOdel Using Machine Learning',' Water , 14(13):2030, 2022, doi: 10.3390/w14132030.

[17] C. Wang, A. -A. Lu, X. Gao and Z. Ding, ``Robust Precoding for 3D Massive MIMO Configuration With Matrix Manifold Optimization," IEEE Transactions on Wireless Communications, vol. 21, no. 5, pp. 3423-3437, May 2022, doi: 10.1109/TWC.2021.3121734.

[18] Z. Liu, M. Del Rosario, and Z. Ding, ``A Markovian Model-Driven Deep Learning Framework for Massive MIMO CSI Feedback," in IEEE Transactions on Wireless Communications,, vol. 21, no. 2, pp. 1214-1228, Feb. 2022, doi: 10.1109/TWC.2021.3103120.

[19] L. Teng, G. Zhai, Y. Wu, X. Min, W. Zhang, Z. Ding, and C Xiao, ``QoE Driven VR 360Â° Video Massive MIMO Transmission," IEEE Transactions on Wireless Communications, vol. 21, no. 1, pp. 18-33, Jan. 2022, doi: 10.1109/TWC.2021.3093305.

[20] Q. Deng, S. Zhang and Z. Ding, ``Point Cloud Resampling via Hypergraph Signal Processing," IEEE Signal Processing Letters, vol. 28, pp. 2117-2121, 2021, doi: 10.1109/LSP.2021.3119257.

[21] X. Ling, P. Chen, J. Wang and Z. Ding, ``Data Broker: Dynamic Multi-Hop Routing Protocol in Blockchain Radio Access Network," in IEEE Communications Letters, vol. 25, no. 12, pp. 4000-4004, Dec. 2021, doi: 10.1109/LCOMM.2021.3114218.

[22] Qi, Siyu, Zhaojun Bai, Zhi Ding, Nimal Jayasundara, Minxue He, Prabhjot Sandhu, Sanjaya Seneviratne, and Tariq Kadir, ``Enhanced Artificial Neural Networks for Salinity Estimation and Forecasting in the Sacramento-San Joaquin Delta of California." Journal of Water Resources Planning and Management 147, no. 10 (2021): 04021069.

[23] Y. -C. Lin, Z. Liu, T. -S. Lee and Z. Ding, ``Deep Learning Phase Compression for MIMO CSI Feedback by Exploiting FDD Channel Reciprocity," in IEEE Wireless Communications Letters, vol. 10, no. 10, pp. 2200-2204, Oct. 2021, doi: 10.1109/LWC.2021.3096808.

[24] C. J. Feres and Z. Ding, ``Wirtinger Flow Meets Constant Modulus Algorithm: Revisiting Signal Recovery for Grant-Free Access," in IEEE Transactions on Signal Processing, vol 69, pp. 6515-6529, Aug. 2021. doi: 10.1109/TSP.2021.3103038.

[25] Q. Hu, Y. Liu, Y. Cai, G. Yu and Z. Ding, ``Joint Deep Reinforcement Learning and Unfolding: Beam Selection and Precoding for mmWave Multiuser MIMO With Lens Arrays," in IEEE Journal on Selected Areas in Communications, vol. 39, no. 8, pp. 2289-2304, Aug. 2021, doi: 10.1109/JSAC.2021.3087233.

[26] C. Sun, J. Wang, X. Gao, Z. Ding and X. Zheng, ``Fiber-Enabled Optical Wireless Communications With Full Beam Coverage," in IEEE Transactions on Communications, vol. 69, no. 5, pp. 3207-3221, May 2021, doi: 10.1109/TCOMM.2021.3059458.

[27] Y. Ge, Q. Deng, P.C. Ching, Z. Ding ``OTFS Signaling for Uplink NOMA of Heterogeneous Mobility Users," in IEEE Transactions on Communications, 2021, doi: 10.1109/TCOMM.2021.3059456.

[28] Y. Ge, Q. Deng, P.C. Ching, Z. Ding ``Receiver design for OTFS with fractionally spaced sampling approach", in IEEE Transactions on Wireless Communications, 2021, doi: 10.1109/TWC.2021.3055585.

[29] S. Zhang, S. Cui and Z. Ding, ``Hypergraph Spectral Analysis and Processing in 3D Point Cloud," in IEEE Transactions on Image Processing, vol. 30, pp. 1193-1206, 2021, doi: 10.1109/TIP.2020.3042088.

[30] S. Zhang, S. Cui and Z. Ding, ``Hypergraph Spectral Clustering for Point Cloud Segmentation," in IEEE Signal Processing Letters, vol. 27, pp. 1655-1659, 2020, doi: 10.1109/LSP.2020.3023587.

[31] X. Ling, Y. Le, J. Wang and Z. Ding, ``Hash Access: Trustworthy Grant-Free IoT Access Enabled by Blockchain Radio Access Networks," in IEEE Network, vol. 34, no. 1, pp. 54-61, January/February 2020, doi: 10.1109/MNET.001.1900159.

[32] Ling, X.; Gao, Z.; Le, Y.; You, L.; Wang, J.; Ding, Z.; Gao, X. ``Satellite-Aided Consensus Protocol for Scalable Blockchains", Sensors Vol. 20, Issue 19, 2020.

[33] Z. Jiang, X. Shen, H. Wang and Z. Ding, ``Joint PSK Data Detection and Channel Estimation Under Frequency Selective Sparse Multipath Channels," in IEEE Transactions on Communications, vol. 68, no. 5, pp. 2726-2739, May 2020, doi: 10.1109/TCOMM.2020.2975172.

[34] Z. Liu, L. Zhang and Z. Ding, ``An Efficient Deep Learning Framework for Low Rate Massive MIMO CSI Reporting," in IEEE Transactions on Communications, vol. 68, no. 8, pp. 4761-4772, Aug. 2020, doi: 10.1109/TCOMM.2020.2993626.

[35] Q. Chen and Z. Ding, ``Accommodating LAA Within IEEE 802.11ax WiFi Networks for Enhanced Coexistence," in IEEE Transactions on Wireless Communications, vol. 19, no. 11, pp. 7621-7636, Nov. 2020, doi: 10.1109/TWC.2020.3014425.

[36] C. Sun, J. Wang, X. Gao and Z. Ding, ``Networked Optical Massive MIMO Communications," in IEEE Transactions on Wireless Communications, vol. 19, no. 8, pp. 5575-5588, Aug. 2020, doi: 10.1109/TWC.2020.2994545.

[37] Q. Liu, J. Xu, Z. Ding and H. C. So, ``Target Localization With Jammer Removal Using Frequency Diverse Array," in IEEE Transactions on Vehicular Technology, vol. 69, no. 10, pp. 11685-11696, Oct. 2020, doi: 10.1109/TVT.2020.3016948.

[38] T. Bouchoucha and Z. Ding, ``Anchor selection for topology inference and routing in wireless sensor networks," in Journal of Communications and Information Networks, vol. 5, no. 3, pp. 318-323, Sept. 2020, doi: 10.23919/JCIN.2020.9200895.

[39] X. Ling, Y. Le, J. Wang, Z. Ding and X. Gao, ``Practical Modeling and Analysis of Blockchain Radio Access Network," in IEEE Transactions on Communications, 2020 doi: 10.1109/TCOMM.2020.3029779.

[40] Z. Liu, L. Zhang and Z. Ding, ``Overcoming the Channel Estimation Barrier in Massive MIMO Communication via Deep Learning," in IEEE Wireless Communications, vol. 27, no. 5, pp. 104-111, October 2020, doi: 10.1109/MWC.001.1900413

[41] Q. Hu, Y. Cai, Q. Shi, K. Xu, G. Yu and Z. Ding, ``Iterative Algorithm Induced Deep-Unfolding Neural Networks: Precoding Design for Multiuser MIMO Systems," in IEEE Transactions on Wireless Communications, 2020. doi: 10.1109/TWC.2020.3033334.

[42] X. Ling, J. Wang, Y. Le, Z. Ding and X. Gao, ``Blockchain Radio Access Network Beyond 5G," in IEEE Transactions on Wireless Communications, in IEEE Wireless Communications, 2020. doi: 10.1109/MWC.001.2000172.

[43] A. Jalali and Z. Ding, ``Joint Detection and Decoding of Polar Coded 5G Control Channels", *IEEE Transactions on Wireless Communications,* 19(3), pp. 2066-2078, Mar. 2020.

[44] Yang, Kai, Yuanming Shi, Wei Yu, and Zhi Ding, ``Energy-efficient processing and robust wireless cooperative transmission for edge inference," *IEEE Internet of Things Journal*, accepted, 2020. DOI: 10.1109/JIOT.2020.2979523

[45] J. Dong, Y. Shi, and Z. Ding, ``Blind Over-the-Air Computation and Data Fusion via Provable Wirtinger Flow", *IEEE Transactions on Signal Processing* vol. 68, pp. 1136-1151, 2020. DOI: 10.1109/TSP.2020.2970338.

[46] Y. Ma, Z. Quan, D. Li, S. Zhang, X. Li, Z. Feng, and Z. Ding, Optimal Linear Cooperation for Signal Classification via M-ary Hypothesis Testing in Cognitive Communication Networks, *IEEE Transactions on Wireless Communications,* 19(5), pp. 3144-3155, May 2020.

[47] S. Zhang, Z. Ding and S. Cui, ``Introducing Hypergraph Signal Processing: Theoretical Foundation and Practical Applications," *IEEE Internet of Things Journal,* , vol.7, no.1, pp. 639-660, Jan. 2020. doi: 10.1109/JIOT.2019.2950213

[48] Z. Jiang, X. Shen, H. Wang and Z. Ding, ``Joint PSK Data Detection and Channel Estimation under Frequency Selective Sparse Multipath Channels," in *IEEE Transactions on Communications*, doi: 10.1109/TCOMM.2020.2975172.

[49] R. Liu, Q. Chen, G. Yu, G. Y. Li and Z. Ding, ``Resource Management in LTE-U Systems: Past, Present, and Future," *IEEE Open Journal of Vehicular Technology,* vol. 1, pp. 1-17, 2020 DOI: 10.1109/OJVT.2019.2949020

[50] Li, Pei-Rong, Zhi Ding, and Kai-Ten Feng, ``Enhanced Receiver Based on FEC Code Constraints for Uplink NOMA With Imperfect CSI." *IEEE Transactions on Wireless Communications* vol. 18, no. 10, pp. 4790-4802, 2019.

[51] Z. Liu, L. Zhang, and Z. Ding, ``Exploiting Bi-Directional Channel Reciprocity in Deep Learning for Low Rate Massive MIMO CSI Feedback", *IEEE Wireless Communications Letters*, Feb. 2019. doi:10.1109/LWC.2019.2898662

[52] K. Yang, Y. Shi and Z. Ding, ``Generalized Low-Rank Optimization for Topological Cooperation in Ultra-Dense Networks," *IEEE Transactions on Wireless Communications,* vol. 18, no. 5, pp. 2539-2552, May 2019. doi: 10.1109/TWC.2019.2904570

[53] K. Yang, Y. Shi and Z. Ding, ``Data Shuffling in Wireless Distributed Computing via Low-Rank Optimization," *IEEE Transactions on Signal Processing,* vol. 67, no. 12, pp. 3087-3099, 15 June, 2019. doi: 10.1109/TSP.2019.2912139

[54] S. Bi, J. Lyu, Z. Ding, and R. Zhang, R., ``Engineering Radio Maps for Wireless Resource Management," *IEEE Wireless Communications,* 26(2), pp.133-141, Feb. 2019. doi:10.1109/MWC.2019.1800146

[55] Z. Zhang, Z. Zhu, B. Bazor, S. Lee, Z. Ding and T. Pan, ``FeetBeat: A Flexible Iontronic Sensing Wearable Detects Pedal Pulses and Muscular Activities," *IEEE Transactions on Biomedical Engineering,* 2019. doi: 10.1109/TBME.2019.2900224

[56] L. Jing, H. Wang, C. He and Z. Ding, ``A Novel Spatial CCK Modulation Design for Underwater Acoustic Communications," *IEEE Transactions on Vehicular Technology,* vol. 68, no. 6, pp. 6192-6196, June 2019. doi: 10.1109/TVT.2019.2912583

[57] T. Bouchoucha, C. N. Chuah, and Z. Ding, ``Topology Inference of Unknown Networks Based on Robust Virtual Coordinate Systems", *IEEE/ACM Transactions on Netorking*, vol. 27, no. 1, pp. 405-418, Jan. 2019. doi:10.1109/TNET.2018.2888600

[58] W. Wu and Z. Ding, ``A Markovian Design of Bi-Directional Robust Header Compression for Efficient Packet Delivery in Wireless Networks" *IEEE Transactions on Wireless Communications*, vol.18, no.1, pp. 20-33, Jan. 2019. doi:10.1109/TWC.2018.2875448

[59] X. Ling, J. Wang. T. Bouchoucha, B. C. Levy, and Z. Ding, ``Blockchain Radio Access Network (B-RAN): Towards Decentralized Secure Radio Access Paradigm," IEEE Access, vol. 7, pp. 9714-9723, Jan. 2019. doi: 10.1109/ACCESS.2018.2890557

[60] H. Wang, L. Jing, C. He, and Z. Ding, `` High Rate CCK Modulation Design for Bandwidth Efficient Link Adaptation," IEEE Wireless Communications Letters, , pp. 4960499, 8(2), April 2019.

[61] Q. Chen, G. Yu, and Z. Ding, ``Enhanced LAA for Unlicensed LTE Deployment Based on TXOP Contention," IEEE Transactions on Communications, vol. 67, no. 1, pp. 417-429, Jan. 2019. doi: 10.1109/TCOMM.2018.2868694

[62] Hema K. Achanta, Soura Dasgupta, Raghuraman Mudumbai, Weiyu Xu, and Zhi Ding, ``Optimum sensor placement for localization of a hazardous source under log normal shadowing," Numerical Algebra, Control & Optimization, no. 3, pp. 361-382, 2019. doi: 10.3934/naco.2019024

[63] C. Sun, X. Gao, J. Wang, Z. Ding and X. Xia, "Beam Domain Massive MIMO for Optical Wireless Communications With Transmit Lens," IEEE Transactions on Communications, vol. 67, no. 3, pp. 2188-2202, March 2019. doi: 10.1109/TCOMM.2018.2883622

[64] P. Ge, X. Liang, J. Wang, C. Zhao, X. Gao and Z. Ding, "Optical Filter Designs for Multi-Color Visible Light Communication", IEEE Transactions on Communications, vol. 67, no. 3, pp. 2173-2187, March 2019. doi: 10.1109/TCOMM.2018.2883422

[65] Y. Wu, C. Xiao, Z. Ding, X. Gao, and S. Jin A Survey on MIMO Transmission With Finite Input Signals: Technical Challenges, Advances, and Future Trends," Proceedings of the IEEE, vol. 106, No. 10, 1779-1833, October, 2018.

[66] Q. Wu, C. Feres, D. Kuzmenko, Z. Ding, Z. Yu, X. Liu, and Xiaoguang Liu, ``Deep learning based RF fingerprinting for device identification and wireless security," Electronics Letters, vol. 54, no. 24, pp. 1405-1407, 2018. doi: 10.1049/el.2018.6404

[67] L. Liang, S. Xie, G. Y. Li, Z. Ding and X. Yu, ``Graph-Based Resource Sharing in Vehicular Communication," IEEE Transactions on Wireless Communications, vol. 17, no. 7, pp. 4579-4592, July 2018. doi: 10.1109/TWC.2018.2827958

[68] Q. Ji, Z. Ding, N. Wang, M. Pan and G. Song, ``A Novel Waveform Optimization Scheme for Piezoelectric Sensors Wire-Free Charging in the Tightly Insulated Environment,"> IEEE Internet of Things Journal, vol. 5, no. 3, pp. 1936-1946, June 2018. doi: 10.1109/JIOT.2018.2817601

[69] X. Ling, J. Wang, Z. Ding, C. Zhao and X. Gao, ``Efficient OFDMA for LiFi Downlink," *Journal of Lightwave Technology,* vol. 36, no. 10, pp. 1928-1943, 15 May 2018. doi: 10.1109/JLT.2018.2796120

[70] C. Jiang, W. Wu, and Z. Ding, ``LTE Multimedia Broadcast Multicast Service Provisioning Based on Robust Header Compression," *IEEE Transactions on Wireless Communications,* vol. 17, no. 2, pp. 1161-1172, Feb. 2018. doi: 10.1109/TWC.2017.2776906

[71] X. Ling, J. Wang, X. Liang, Z. Ding, C. Zhao, and X. Gao ``Biased Multi-LED Beamforming for Multicarrier Visible Light Communications," IEEE Journal on Selected Areas in Communications, vol. 36, no. 1, pp.106-120, Jan. 2018. doi: 10.1109/JSAC.2017.2774539

[72] X. Liang, Z. Ding and C. Xiao, ``On Linear Precoding of Non-Regenerative MIMO Relay Networks For Finite-Alphabet Source," *IEEE Transactions on Vehicular Technology,* vol. 66, no. 11, pp. 9761-9775, Nov. 2017. doi: 10.1109/TVT.2017.2717925

[73] X. Liang; M. Yuan; J. Wang; Z. Ding; M. Jiang; C. Zhao, ``Constellation Design Enhancement for Color-Shift Keying Modulation of Quadrichromatic LEDs in Visible Light Communications," *Journal of Lightwave Technology,* vol.15, no.17, pp.3650-3663, September 2017. doi: 10.1109/JLT.2017.2720579

[74] L. Jing, C. He, J. Huang and Z. Ding, ``Energy Management and Power Allocation for Underwater Acoustic Sensor Network,"*IEEE Sensors Journal,* vol. 11, no. 11, pp. 1789-1796, August 2017. doi: 10.1109/JSEN.2017.2737229

[75] W. Wu and Z. Ding, ``On Efficient Packet-Switched Wireless Networking: A Markovian Approach to Trans-layer Design and Optimization of ROHC," in IEEE Transactions on Wireless Communications , vol.16, no.7, pp.4232-4245, July 2017. doi: 10.1109/TWC.2017.2694840

[76] W. Wu, H. Mittelmann, and Z. Ding, ``Modulation Design for MIMO-CoMP HARQ," IEEE Communications Letters, vol.21, no.2, pp.290-293, Feb. 2017. doi: 10.1109/LCOMM.2016.2618796

[77] Lianyou Jing, C. He, Jian-guo Huang, and Z. Ding, ``Joint Channel Estimation and Detection Using MCMC Method over Sparse Underwater Acoustic Channels". *IET Communications,* May 2017. doi: 10.1049/iet-com.2016.1339

[78] L. Jing, H. Wang, C. He and Z. Ding, ``Spatial CCK Modulation and Iterative Detection over Frequency-Selective Fading Channels," *IEEE Wireless Communications Letters,* vol.6, no.4, pp.506-509, June 2017. doi: 10.1109/LWC.2017.2709315

[79] Hesham Elmaghraby and Zhi Ding, ``Scheduling and Power Allocation for Hybrid Access Cognitive Femtocells," *IEEE Transactions on Wireless Communications* vol.16, No.4, pp. 2520-2533, April 2017.

[80] Chen Sun, Xiqi Gao, and Zhi Ding. ``BDMA in Multi-Cell Massive MIMO Communications: Power Allocation Algorithms", *IEEE Transactions on Signal Processing,* vol. 65, No. 11, pp. 2962-74, June 2017.

[81] Dongrun Qin and Zhi Ding, ``Transport capacity analysis of wireless in-band full duplex ad hoc networks." *IEEE Transactions on Communications,* vol. 65, no. 3, pp.1303-18, March 2017. doi: 10.1109/TCOMM.2016.2640278

[82] Qimei Chen, Guanding Yu, Hesham M. Elmaghraby, Jyri Hamalainen, Zhi Ding, ``Embedding LTE-U within Wi-Fi Bands for Spectrum Efficiency Improvement", *IEEE Network*, Vol.31, No. 2, pp. 72-79, March 2017.

[83] K. Wang; Z. Ding, ``FEC Code Anchored Robust Design of Massive MIMO Receivers," in *IEEE Transactions on Wireless Communications,* vol.15, no.12, pp.8223-8235, 2016, doi: 10.1109/TWC.2016.2613516

[84] Q. Chen, G. Yu and Z. Ding, ``Optimizing Unlicensed Spectrum Sharing for LTE-U and WiFi Network Coexistence," in *IEEE Journal on Selected Areas in Communications,* vol. 34, no. 10, pp. 2562-2574, Oct. 2016. doi: 10.1109/JSAC.2016.2604998

[85] Z. Zheng; J. Hamalainen; Z. Ding, ``On the sum rate of fair resource allocation with selective feedback," in *IEEE Transactions on Wireless Communications*, vol.15, no.8, pp.5193 - 5205, doi: 10.1109/TWC.2016.2554579

[86] D. Qin and Z. Ding, ``Exploiting Multi-Antenna Non-Reciprocal Channels for Shared Secret Key Generation,"in *IEEE Transactions on Information Forensics and Security,* vol. 11, no. 12, pp. 2693-2705, Dec. 2016. doi: 10.1109/TIFS.2016.2594143

[87] Han, Huy-Dung, Zhi Ding, and Muhammad Zia. ``A Convex Relaxation Approach to Higher-Order Statistical Approaches to Signal Recovery." *IEEE Transactions on Vehicular Technology*, vol.PP, no.99, pp.1-1 doi: 10.1109/TVT.2016.2542108

[88] H. Wang; C. Zhu; Z. Ding, ``Femtocell Power Control for Interference Management Based on Macro-Layer Feedback," IEEE Transactions on Vehicular Technology, vol.64, no.6, pp.5222-5236 July 2016. doi: 10.1109/TVT.2015.2463718

[89] W. Wu, H. Mittelmann, and Z. Ding, ``Modulation Design for Two-Way Amplify-and-Forward Relay HARQ," IEEE Wireless Communications Letters, vol.5, no.3, pp.244-247, June 2016. doi: 10.1109/LWC.2016.2530659

[90] K. Wang; Z. Ding, ``Diversity Integration in Hybrid-ARQ with Chase Combining under Partial CSI," in IEEE Transactions on Communications, vol.64, no.6, pp.2647-2659, June 2016. doi: 10.1109/TCOMM.2016.2553664

[91] Xintong Ling, J. Wang, X. Liang, Z. Ding, C. Zhao, Offset and power optimization for DCO-OFDM in visible light communication systems," *IEEE Transactions on Signal Processing,* 64(2), 349-363, 2016.

[92] H. Tang and Z. Ding, ``Mixed Mode Transmission and Resource Allocation for D2D Communication," IEEE Transactions on Wireless Communications, vol. 15, no. 1, pp. 162-175, Jan. 2016. doi: 10.1109/TWC.2015.2468725

[93] X. Ling, J. Wang, X. Liang, Z. Ding and C. Zhao, ``Offset and Power Optimization for DCO-OFDM in Visible Light Communication Systems," IEEE Transactions on Signal Processing, vol. 64, no. 2, pp. 349-363, Jan.15, 2016. doi: 10.1109/TSP.2015.2477799

[94] H. Wang, J. Wang and Z. Ding, ``Distributed Power Control in a Two-Tier Heterogeneous Network," IEEE Transactions on Wireless Communications, vol. 14, no. 12, pp. 6509-6523, Dec. 2015. doi: 10.1109/TWC.2015.2456055

[95] Bi, Suzhi, Rui Zhang, Zhi Ding, and Shuguang Cui. ``Wireless communications in the era of big data." IEEE Communications Magazine, vol. 53, no. 10, pp. 190-199, October 2015. doi: 10.1109/MCOM.2015.7295483

[96] Michal Cierny, Zhi Ding, and Risto Wichman. ``Higher Rank Interference Effect on Weak Beamforming or OSTBC Terminals." IEEE Transactions on Wireless Communications, vol. 14, no. 9, pp. 4948-4957, Sept. 2015. doi: 10.1109/TWC.2015.2429648

[97] Haile, B.B.; Dowhuszko, A.A.; Hamalainen, J.; Wichman, R.; Ding, Z., ``On Performance Loss of Some CoMP Techniques Under Channel Power Imbalance and Limited Feedback,", IEEE Transactions on Wireless Communications, vol.14, no.8, pp.4469-4481, Aug. 2015. doi: 10.1109/TWC.2015.2421898

[98] Kun Wang, Hong Shen, Wenhao Wu, and Zhi Ding, Joint Detection and Decoding in LDPC-Based Space-Time Coded MIMO-OFDM Systems via Linear Programming" IEEE Transactions on Signal Processing, 63. 3411-3424. 2015. doi: 10.1109/TSP.2015.2422681

[99] Elsherif, A.R.; Wei-Peng Chen; Ito, A.; Zhi Ding, ``Resource Allocation and Inter-Cell Interference Management for Dual-Access Small Cells," *IEEE Journal on Selected Areas in Communications,* vol.33, no.6, pp.1082-1096, June 2015. doi: 10.1109/JSAC.2015.2416990

[100] Elsherif, A.R.; Chen, Wei-Peng; Ito, A.; Z. Ding, ``Adaptive resource allocation for interference management in small cell networks," IEEE Transactions on Communications, vol.63, no.6, pp.2107-2125, June 2015. doi: 10.1109/TCOMM.2015.2420676

[101] Sun, C.; Gao, X.; Jin, S.; Matthaiou, M.; Ding, Z.; Xiao, C., ``Beam Division Multiple Access Transmission for Massive MIMO Communications," IEEE Transactions on Communications," vol.63, no.6, pp.2170-2184, 2015. doi: 10.1109/TCOMM.2015.2425882

[102] Sam Siu, Qing Ji, Wenhao Wu, Gangbing Song, and Zhi Ding, ``Stress wave communication in concrete: I. Characterization of a smart aggregate based concrete channel," *Smart Materials and Structures,* 23(12): 125030, Dec. 2014.

[103] Sam Siu, Qing Ji, Wenhao Wu, Gangbing Song, and Zhi Ding. ``Stress wave communication in concrete: II. Evaluation of low voltage concrete stress wave communications utilizing spectrally efficient modulation schemes with PZT transducers," *Smart Materials and Structures,* 23(12): 125031, Dec. 2014.

[104] Wang, Haining, and Zhi Ding, ``Power Control and Resource Allocation for Outage Balancing in Femtocell Networks," *IEEE Transactions on Wireless Communications,* 14, no. 4 (2015): 2043-2057. doi: 10.1109/TWC.2014.2379282

[105] Wu, Wenhao, Kun Wang, Weiliang Zeng, Zhi Ding, and Chengshan Xiao, ``"Cooperative Multi-Cell MIMO Downlink Precoding With Finite-Alphabet Inputs," *IEEE Transactions on Communications,* vol. 63, no. 3 (2015): 766-779. doi: 10.1109/TCOMM.2015.2388584

[106] Huan Tang, Zhi Ding, and B. C. Levy, ``Enabling D2D Communications Through Neighbor Discovery in LTE Cellular Networks," IEEE Transactions on Signal Processing, vol.62, no.19, pp.5157-5170, Oct.1, 2014. doi: 10.1109/TSP.2014.2348950

[107] Haining Wang; Zhi Ding, ``Macrocell-Queue-Stabilization-Based Power Control of Femtocell Networks," *IEEE Transactions on Wireless Communications*, vol.13, no.9, pp.5223-5236, Sept. 2014

[108] Zia, M.; Ding, Z., ``Bandwidth Efficient Variable Rate HARQ Under Orthogonal Space-Time Block Codes," IEEE Transactions on Signal Processing, vol.62, no.13, pp.3360-3370, July 2014 doi: 10.1109/TSP.2014.2327580

[109] Binbin Guan; Djordjevic, S.S.; Fontaine, N.K.; Linjie Zhou; Ibrahim, S.; Scott, R.P.; Geisler, D.J.; Zhi Ding; Ben Yoo, S.J., "CMOS Compatible Reconfigurable Silicon Photonic Lattice Filters Using Cascaded Unit Cells for RF-Photonic Processing," IEEE Journal of Selected Topics in Quantum Electronics, vol.20, no.4, pp.1,10, July-Aug. 2014 doi: 10.1109/JSTQE.2013.2296233

[110] Hong Shen; Zhi Ding; Dasgupta, S.; Chunming Zhao, "Multiple Source Localization in Wireless Sensor Networks Based on Time of Arrival Measurement,"IEEE Transactions on Signal Processing, vol.62, no.8, pp.1938-1949, April 15, 2014 doi: 10.1109/TSP.2014.2304433

[111] Dongrun Qin; Zhi Ding; Dasgupta, S., "On Forward Channel Estimation for MIMO Precoding in Cooperative Relay Wireless Transmission Systems," IEEE Transactions on Signal Processing, vol.62, no.5, pp.1265-1278, March 2014 doi: 10.1109/TSP.2013.2296880

[112] Elsherif, A.R.; Zhi Ding; Xin Liu, "Dynamic MIMO Precoding for Femtocell Interference Mitigation," IEEE Transactions on Communications, vol.62, no.2, pp.648-666, February 2014 doi: 10.1109/TCOMM.2013.122913.130062

[113] Tseng, Po-Hsuan, Zhi Ding, and Kai-Ten Feng. "Cooperative Self-Navigation in a Mixed LOS and NLOS Environment", IEEE Transactions on Mobile Computing, 13, no. 2 (2014): 350-363. doi: 10.1109/TMC.2013.6

[114] Ahmed R. Elsherif, Zhi Ding, Xin Liu, and Jyri Hamalainen, ``Resource Allocation in Two-Tier Heterogeneous Networks through Enhanced Shadow Chasing," IEEE Transactions on Wireless Communications, vol. 12, no.12, pp. 6439-6453, Dec. 2013. doi:10.1109/TWC.2013.101813.130732

[115] Enyang Xu, Z.Ding, and S. Dasgupta, ``Target tracking and mobile sensor navigation in wireless sensor networks". IEEE Transactions on Mobile Computing, 12(1):177-186. 2013. doi: 10.1109/TMC.2011.262

[116] Jacklin, Neil, and Zhi Ding. "A linear programming based tone injection algorithm for papr reduction of OFDM and linearly precoded systems", IEEE Transactions on Circuits and Systems I: Regular Papers, vol. 60, no. 7 (2013): 1937-1945. doi: 10.1109/TCSI.2012.2230505

[117] M. Cierny, Haining Wang, R. Wichman, Zhi Ding, and C. Wijting, ``On Number of Almost Blank Subframes in Heterogeneous Cellular Networks," IEEE Transactions on Wireless Communications, vol.12, no.10, pp.5061-5073, October 2013.

[118] Zhe Jiang; Haiyan Wang; Zhi Ding, ``A Bayesian Algorithm for Joint Symbol Timing Synchronization and Channel Estimation in Two-Way Relay Networks,"IEEE Transactions on Communications, vol.61, no.10, pp.4271-4283, October 2013. doi:10.1109/TCOMM.2013.082813.110691

[119] Yongpeng Wu; Chengshan Xiao; Xiqi Gao; Matyjas, J.D.; Zhi Ding, "Linear Precoder Design for MIMO Interference Channels with Finite-Alphabet Signaling," IEEE Transactions on Communications, vol.61, no.9, pp.3766-3780, September 2013. doi: 10.1109/TCOMM.2013.072213.130132

[120] Xiao Liang; Chun-Ming Zhao; Zhi Ding, ""Piggyback Retransmissions over Wireless MIMO Channels: Shared Hybrid-ARQ (SHARQ) for Bandwidth Efficiency," IEEE Transactions on Wireless Communications, vol.12, no.8, pp.3770,3782, August 2013. doi: 10.1109/TWC.2013.051313.121098

[121] Kun-Yu Wang, Neil Jacklin, Zhi Ding, and Chong-Yung Chi, ``Robust MISO Transmit Optimization under Outage-Based QoS Constraints in Two-Tier Heterogeneous Networks," IEEE Transactions on Wireless Communications, 12 (4):1883-1897, April 2013. doi: 10.1109/TWC.2013.022013.121111

[122] Enyang Xu, Zhi Ding, and S. Dasgupta, ``Target Tracking and Mobile Sensor Navigation in Wireless Sensor Networks", IEEE Transactions on Mobile Computing, 12(1):177 - 186, Jan. 2013.

[123] F. E. Lapiccirella, X. Liu, and Z. Ding, ``Distributed Control of Multiple Cognitive Radio Overlay for Primary Queue Stability", IEEE Transactions on Wireless Communications, 12(1):112-122, January 2013. doi:10.1109/TWC.2012.121112.111783

[124] Shafi, A. Bashar, Zhi Ding, and Chengshan Xiao, ``On Secrecy Rate Analysis of MIMO Wiretap Channels Driven by Finite-Alphabet Input," IEEE TRANSACTIONS ON COMMUNICATIONS, 60 (12):3816-3825, Dec. 2012.

[125] Huy-Dung Han and Z. Ding, ``Steepest descent algorithm implementation for multichannel blind signal recovery", IET Communications, 6(18):3196-3203, December 2012.

[126] Y. Wu, C. Xiao and Z. Ding, X. Gao, and S. Jin, ``LINEAR PRECODING FOR FINITE-ALPHABET SIGNALING OVER MIMOME WIRETAP CHANNELS," IEEE Transactions on Vehicular Technology, 61(6): 2599-2612, 2012

[127] Y. Wu, M. Wang, C. Xiao, Z. Ding, X.-Q. Gao ``Linear Precoding for MIMO Broadcast Channels With Finite-Alphabet Constraints", IEEE Transactions on Wireless Communications, 11(8): 2906 - 2920, August 2012

[128] Neil Jacklin, Zhi Ding, Wei Chen, Chunqi Chang, ``Noniterative Convex Optimization Methods for Network Component Analysis" IEEE/ACM Transactions on Computational Biology and Bioinformatics, 9(5):1472-1481, Sept.-Oct. 2012

[129] F.~E. Lapiccirella, Z. Ding, and X. Liu, ``Cognitive Spectrum Access Control Based on Intrinsic Primary ARQ Information", IET Communications, 6(8):900-908, August 2012.

[130] X. Liang, Z. Ding and C. Xiao, ``OPTIMIZED POWER ALLOCATION FOR PACKET RETRANSMISSIONS OF NON-GAUSSIAN INPUTS THROUGH SEQUENTIAL AWGN CHANNELS", IEEE Transactions on Communications, 60(7): 1889-1902, 2012.

[131] T. Miyajima and Zhi Ding, ``Subcarrier Nulling Algorithms for Channel Shortening in Uplink OFDMA Systems," IEEE Transactions on Signal Processing, vol.60, no.5, pp.2374-2385, May 2012.

[132] C. Xiao, Y. R. Zheng, and Z. Ding, ``Globally optimal linear precoders for finite alphabet signals over complex vector Gaussian channels," IEEE Trans. Signal Process., vol.59, pp.3301-3314, July 2011.

[133] Li Zhang, Shu Lin, K. Abdel-Ghaffar, Zhi Ding, and Bo Zhou, ``Quasi-Cyclic LDPC Codes on Cyclic Subgroups of Finite Fields" , IEEE Transactions on Communications, 59(9):2330-2336, Sept. 2011

[134] Z. Muhammad, and Z. Ding, ``Blind Multiuser Detection for Synchronous High Rate Space-Time Block Coded Transmission", IEEE Transactions on Wireless Communications, Issue: 99, July 2011, Page(s): 2171 - 2185.

[135] S. Bashar, Z. Ding, C. Xiao, ``On the Secrecy Rate of Multi-Antenna Wiretap Channel under Finite-Alphabet Input", IEEE Communications Letters, Vol. 15, No. 5, 2011, Page(s): 527-529.

[136] Xiao Liang, Chunming Zhao, and Zhi Ding, ``Sequential Linear MIMO Precoder Optimization for Hybrid ARQ Retransmission of QAM Signals", IEEE Communications Letters, 15(9): 913 - 915, September 2011.

[137] Enyang Xu; Zhi Ding; Dasgupta, S.; ``Source Localization in Wireless Sensor Networks From Signal Time-of-Arrival Measurements", IEEE Transactions on Signal Processing, Volume: 59 , Issue: 6, June 2011, Page(s): 2887 - 2897

[138] S. Bashar, Z. Ding, and (G.) Y. Li, `` On Secrecy of Codebook-Based Transmission Beamforming under Receiver Limited Feedback," IEEE Transactions on Wireless Communications, Volume: 10 , Issue: 4, April 2011 , Page(s): 1212 - 1223

[139] Senhua Huang, Xin Liu, and Zhi Ding; ``Decentralized Cognitive Radio Control Based on Inference from Primary Link Control Information", IEEE Journal on Selected Areas in Communications, Volume: 29 Issue:2, February 2011; page(s): 394 - 406.

[140] Enyang Xu, Zhi Ding, Soura Dasgupta, ``Reduced Complexity Semidefinite Relaxation Algorithms for Source Localization based on Time Difference of Arrival," IEEE Transactions on Mobile Computing, vol. 99, no. 9, 2011.

[141] Djordjevic, S.S.; Luo, L.W.; Ibrahim, S.; Fontaine, N.K.; Poitras, C.B.; Guan, B.; Zhou, L.; Okamoto, K.; Ding, Z.; Lipson, M.; Yoo, S.J.B.; ``Fully Reconfigurable Silicon Photonic Lattice Filters With Four Cascaded Unit Cells," IEEE Photonics Technology Letters, vol.23, no.1, pp.42-44, Jan.1, 2011

[142] Z. Shi, W. Xu, S. Jin, C. Zhao, and Z. Ding, ``On Wireless Downlink Scheduling of MIMO Systems With Homogeneous Users" IEEE Transactions on Information Theory, Volume 56, July 2010. page(s): 3367 - 3378.

[143] S. Song, S. Lin, K. Abdel-Ghaffar, Z. Ding, W.H. Fong, M.P.C. Fossorier, ``Burst Decoding of Cyclic Codes Based on Circulant Parity-Check Matrices," IEEE Transactions on Information Theory, Volume 56, March 2010. page(s): 1038 - 1047.

[144] M. Muhammad and Z. Ding, ``A Linear Programming Receiver for Blind Detection of Full Rate Space-Time Block Codes" IEEE Transactions on Signal Processing, Volume: Issue: 99, Nov. 2010.

[145] S. Huang, X. Liu, and Z. Ding, ``Optimal Transmission Strategies for Dynamic Spectrum Access in Cognitive Radio Networks," IEEE Transactions on Mobile Computing, Volume 8, No. 12, December 2009. Page(s):1636 - 1648

[146] C. He, J. Huang, and Z. Ding, ``A Variable-Rate Spread-Spectrum System for Underwater Acoustic Communications" IEEE Journal of Oceanic Engineering, 34(4): 624-633, Oct. 2009.

[147] W. Xu, C. Zhao, and Z. Ding, ``Optimisation of limited feedback design for heterogeneous users in multi-antenna downlinks" , Institution of Engineering and Technology Communications, Volume 3, Issue 11, Page(s):1724 - 1735, November 2009

[148] S. Bashar and Zhi Ding, ``Admission control and resource allocation in a heterogeneous OFDMA wireless network" IEEE Transactions on Wireless Communications, Volume 8, Issue 8, Page(s):4200 - 4210, August 2009

[149] Wei Xu, Chunming Zhao, and Zhi Ding, ``Limited Feedback Multiuser Scheduling of Spatially Correlated Broadcast Channels" , IEEE Transactions on Vehicular Technology, Volume 58, Issue 8, Page(s):4406 - 4418, Oct. 2009.

[150] C. Meng, J. Tuqan, and Z. Ding, `` A Quadratic Programming Approach to Blind Equalization and Signal Separation" IEEE Transactions on Signal Processing, 57(6): 2232-2244, June 2009.

[151] Wei Xu, Chunming Zhao, and Zhi Ding, ``Limited feedback design for MIMO broadcast channels with ARQ mechanism" IEEE Transactions on Wireless Communications, Volume 8, Issue 4, Page(s):2132 - 2141, April 2009.

[152] Xiaofei Dong and Z. Ding, ``Wireless Channel Estimation for Linear MIMO Transmission Precoding" IEEE Transactions on Communications, Volume 57, Issue 4, April 2009 Page(s):1151 - 1161

[153] Bo Zhou, Jingyu Kang, Ying Tai, Shu Lin, and Zhi Ding, ``High Performance Non-Binary Quasi-Cyclic LDPC Codes on Euclidean Geometries LDPC Codes on Euclidean Geometries," IEEE Transactions on Communications, Volume 57, Issue 5, May 2009, Page(s):1298 - 1311.

[154] S. D. Chitte, S. Dasgupta, and Zhi Ding, ``Distance Estimation From Received Signal Strength Under Log-Normal Shadowing: Bias and Variance", IEEE Signal Processing Letters, 16(3): 216 - 218, March 2009.

[155] X. Dong, Z. Ding, and S. Dasgupta, ``Performance Analysis of a Forward Link Channel Estimation Method for Wireless Multicarrier Systems," IEEE Transactions on Wireless Communications,, 7(8): 3026-3035, August 2008.

[156] Chunqi Chang, Zhi Ding, Yeung Sam Hung, and Peter Chin Wan Fung, ``Fast Network Component Analysis (FastNCA) for Gene Regulatory Network Reconstruction from Microarray Data", Bioinformatics 2008 24(11):1349-1358.

[157] H. Sun, Z. Shi, C. Zhao, J. H. Manton, and Z. Ding, ``Progressive Linear Precoder Optimization for MIMO Packet Retransmissions Exploiting Channel Covariance Information", IEEE Transactions on Communications, Volume: 55, Issue: 5, page(s): 818-827, May 2008.

[158] H. Kameyama, T. Miyajima, and Z. Ding, ``Perfect Blind Channel Shortening for Multicarrier Systems", IEEE Transactions on Circuits and Systems, Volume: 55, Issue: 3, page(s): 851-860, April 2008.

[159] C. Meng, Z. Ding, and S. Dasgupta, ``A Semidefinite Programming Approach to Source Localization in Wireless Sensor Networks", IEEE Signal Processing Letters, Volume 15, 2008, Page(s):253 - 256

[160] Zhihua Shi, Haitong Sun, Chunming Zhao, and Z. Ding, ``Linear precoder optimization for ARQ packet retransmissions in centralized multiuser MIMO uplinks", IEEE Transactions on Wireless Communications, vol. 7, no. 2, February 2008, page(s): 736-745.

[161] Peter M. Hahn, Bum-Jin Kim, Thomas Stutzle, Sebastian Kanthak, William L. Hightower, Harvind Samra, Zhi Ding, and Monique Guignard, The Quadratic Three-dimensional Assignment Problem: Exact and Approximate Solution Methods, European Journal of Operational Research Volume 184, Issue 2, Pages 416-428, 16 January 2008.

[162] Y. Du, F.Xue, S. J. B. Yoo, and Z. Ding, "Security Enhancement of SPECTS O-CDMA Through Concealment Against Upstream DPSK Eavesdropping", Journal of Lightwave Technology, Volume 25, Issue 9, Sept. 2007 Page(s):2799 - 2806

[163] H. Sun and Z. Ding, Iterative Transceiver Design for MIMO ARQ Retransmissions With Decision Feedback Detection" IEEE Transactions on Signal Processing, vol. 55, pp. 3405-3416, July 2007.

[164] C. Yang, N. K. Fontaine, R. P. Scott, V. J. Hernandez, W. Cong, D. L. Harris, K. Okamoto, B. H. Kolner, Z. Ding, J. P. Heritage, and S. J. B. Yoo, ``Two-User 150-km Field Fiber Security Enhanced SPECTS O-CDMA Transmission", IEEE Photonics Technology Letters, Volume 19, Issue 11, June 1, 2007, Page(s):852 - 854.

[165] S. J. Yoo, J. P. Heritage, V. J. Hernandez, R. P. Scott, W. Cong, N. K. Fontaine, R. G. Broeke, J. Cao, S.-W. Seo, J.-H. Baek, F. M. Soares, Y. Du, C. Yang, W. Jiang, K. Aihara, Z. Ding, B. H. Kolner, Anh-Vu Pham, Shu Lin, F. Olsson, S. Lourdudoss, K. Y. Liou, S. N. Chu, R. A. Hamm, B. Patel, W. S. Hobson, J. R. Lothian, S. Vatanapradit, L. A. Gruezke, W. T. Tsang, M. Shearn, and A. Scherer, ``Spectral phase encoded time spread optical code division multiple access technology for next generation communication networks [Invited]", Journal of Optical Networking,, Volume 6, Issue 10, Pages 1210-1227, September 2007.

[166] Tongtong Li, Qi Ling, and Zhi Ding ``Transmit Delay Structure Design for Blind Channel Estimation over Multipath Channels," EURASIP Journal onWireless Communications and Networking, February 2007, Page(s)

[167] V.J. Hernandez, Wei Cong; Junqiang Hu; Chunxin Yang; Fontaine, N.K.; Scott, R.P.; Zhi Ding; Kolner, B.H.; Heritage, J.P.; Yoo, S.J.B.; ``A 320-Gb/s Capacity (32-User X 10 Gb/s) SPECTS O-CDMA Network Testbed With Enhanced Spectral Efficiency Through Forward Error Correction" IEEE Journal of Lightwave Technology, Volume 25, Issue 1, Jan. 2007 Page(s):79 - 86

[168] J. Roberson, X. Dong, and Z. Ding, ``Channel Estimation and Equalization Techniques in Downsampled ARQ Systems" , IEEE Transactions on Signal Processing, Volume 55, Issue 5, Page(s):2251 - 2262, May 2007.

[169] N. Ammar and Z. Ding, ``Blind Channel Identifiability for Generic Linear Space-Time Block Codes", , IEEE Transactions on Signal Processing, Volume 55, Issue 1, Jan. 2007, Page(s):202 - 217.

[170] Y. Du, S. J. B. Yoo, and Z. Ding, ``Nonuniform Spectral Phase Encoding in Optical CDMA Networks" IEEE Photonics Technology Letters, Volume 18, Issue 23, Dec.1, 2006, Page(s):2505 - 2507.

[171] H. Sun, J. Manton, and Z. Ding, ``Progressive Linear Precoder Optimization for MIMO Packet Retransmissions Exploiting Channel Covariance Information", IEEE Journal on Selected Areas in Communications, Vol. 24, no.3, pp. 448-456, March 2006.

[172] H. Samra and Z. Ding, ``Retransmission Diversity Schemes for Multicarrier Modulations", IEEE Transactions on Wireless Communications. Vol. 5, no. 5, pp. 1142-1147, May 2006.

[173] N. Ammar and Z. Ding, ``Channel Identifiability under Space-Time Coded Modulations without Training" , IEEE Transactions on Wireless Communications. Vol. 5, no. 5, pp. 1003-1013, May 2006.

[174] T. A. Drumright and Z. Ding, ``QAM Constellation Classification based on Statistical Sampling for Distortive Channels", IEEE Trans. on Signal Processing. Vol.54, No.5, pp. 1575-1586, May 2006.

[175] H. Samra and Z. Ding, ``New MIMO ARQ Protocols and Joint Detection via Sphere Decoding," IEEE Transactions on Signal Processing, vol. 54, no.2, pp. 473-482, Feb. 2006.

[176] B. Parr, B. L. Cho, K. Wallace, and Z. Ding, ``Performance Analysis of a spectrally compliant ultra-wideband pulse design," IEEE Transactions on Wireless Communications, vol.4, No.5, pp. 2172-2181, September 2005.

[177] X. Tang and Z. Ding, ``Low-Complexity Iterative Equalization for EDGE with Bidirectional Processing," IEEE Transactions on Wireless Communications, vol. 4, No.5, pp.1963-1968, September, 2005.

[178] H. Samra and Z. Ding, ``A Hybrid ARQ Protocol using Integrated Channel Equalization," IEEE Transactions on Communications, vol. 53, No. 12, pp. 1996-2001, Dec. 2005.

[179] X. Dong, Z. Ding, and S. Dasgupta, ``Forward link channel estimation and precoding based on decimated feedback," IEEE Signal Processing Letters. Vol. 12, Issue 6, pp.445-448, Dec. 2005.

[180] H. Samra, Z. Ding, and P.M. Hahn, ``Symbol Mapping Diversity Design for Multiple Packet Transmissions," IEEE Transactions on Communications, Vol. 53, No.5, pp. 810-817, May 2005.

[181] S. Cui, M. Kisialiou, Z.-Q. Luo, and Z. Ding, ``Robust Blind Multiuser Detection Against Signature Waveform Mismatch base on second order cone programming," IEEE Transactions on Wireless Communications, Vol. 4, No. 4, pp. 1285-1291, July 2005.

[182] T. Li, W. Liang, Z. Ding, and J. K. Tugnait, ``Blind Multiuser Detection for Long-code CDMA Systems with Transmission-induced Cyclostationarity," EURASIP Journal on Wireless Communications and Networking, vol.2, pp.206-215, 2005

[183] T. Miyajima and Zhi Ding, ``Second-order statistical approaches to channel shortening in multicarrier systems", IEEE Transactions on Signal Processing, pp.3253 - 3264, vol.52, Nov. 2004.

[184] V. J. Hernandez, Y. Du, W. Cong, R. P. Scott, K. Li, J. P. Heritage, Z. Ding, B. H. Kolner, and S. J. B. Yoo, ``Spectral phase-encoded time-spreading (SPECTS) optical code-division multiple access for terbit optical access networks," IEEE Journal of Lightwave Technology, Vol.22, No. 11, pp. 2671-2678, 2004.

[185] H. Xu, S. Dasgupta, and Z. Ding, ``A Novel Channel-identification Method for Wireless Communication Systems", IEEE Transactions on Communications, vol.52, pp.1767-1776, Oct. 2004.

[186] Wing-Kin Ma, Pak-Chung Ching, and Zhi Ding, ``Semidefinite relaxation based multiuser detection for M-ary PSK multiuser systems", IEEE Transactions on Signal Processing, vol.52 pp.2862-2872, Oct. 2004.

[187] J. Liang and Z. Ding, ``FIR Channel Estimation through Generalized Cumulant Slice Weighting," IEEE Trans. Signal Processing, pp.657-667, Mar. 2004.

[188] J. Liang and Z. Ding, ``Nonminimum Phase FIR Channel Estimation Using Cumulant Matrix Pencils", IEEE Trans. Signal Processing, pp.2310-2320, Sept. 2003.

[189] J. Liang and Z. Ding, ``Blind MIMO System Identification Based on Cumulant Subspace Decomposition", IEEE Trans. Signal Processing, vol.51, pp.1457-1468, June 2003.

[190] Z. Ding and L. Qiu, ``Blind MIMO Channel Identification from Second Order Statistics using Rank Deficient Channel Convolution Matrix," IEEE Trans. on Signal Processing, pp.535-544, Feb. 2003.

[191] Q. Li, E.-W. Bai, and Z. Ding, ``Blind Source Separation of Signals with Known Alphabets using E-Approximation Algorithms", IEEE Trans. on Signal Processing, pp.1-10, Jan. 2003.

[192] B. Parr, B. Cho, K. Wallace, and Z. Ding, ``A Novel Ultra-Wideband Pulse Design Algorithm", IEEE Communications Letters, vol.7, pp. 219-222, Dec. 2002.

[193] J. Liang and Z. Ding, ``Multiuser Channel Estimation from Higher Order Statistical Matrix Pencil", EURASIP Journal on Applied Signal Processing, , vol. 49, no. 2, pp. 1417-1426, Dec. 2002.

[194] X. Tang and Zhi Ding, ``Error Propagation in Blind Sequence Estimation", IEEE Communications Letters, vol.6, pp. 265-267, June 2002.

[195] J. E. Mooney, Z. Ding, and L. S. Riggs, ``Performance Analysis of a GLRT Automated Target Discrimination Scheme," IEEE Transactions on Antenna and Propagation, 49(12):1827-1835, Dec. 2001.

[196] R. Lopez-Valcarce, Zhi Ding, and Soura Dasgupta ``Equalization and Interference Cancellation in Linear Multi-User Systems Based on Second Order Statistics" , IEEE Transactions on Signal Processing , vol. 49, no.9, pp. 2042-2049, 2001.

[197] Erwei Bai and Zhi Ding, ``Blind Decision Feedback Equalization of Time-Varying Channels with DPSK Inputs", IEEE Transactions on Signal Processing, vol.49, no.7, pp. 1533-1542, July, 2001.

[198] Junqiang Shen and Zhi Ding, ``Zero-Forcing Blind Equalization Based on Channel Subspace Estimates for Multiuser Systems", IEEE Transactions on Communications, pp.262-271, Feb. 2001.

[199] Zhi Ding and Jing Liang, ``A Cumulant Matrix Subspace Algorithm for Blind Single FIR Channel Identification", IEEE Transactions on Signal Processing, vol. 49, no. 2, pp. 325-333, Feb. 2001

[200] Ge Li and Zhi Ding, ``Semi-blind Channel Identification for Individual Data Bursts in GSM Wireless Systems", Signal Processing, 80(10):2017-2031, Oct. 2000.

[201] Zhi Ding and Zhi-Quan Luo, ``A Fast Linear Programming Algorithm for Blind Equalization", IEEE Transactions on Communications, COM-48(9):1432-1436, September 2000.

[202] Chor Tin Ma, Zhi Ding, and Sze Fong Yau, ``A Two Stage Algorithm for MIMO Blind Deconvolution of Colored Input Signals", IEEE Transactions on Signal Processing, SP-48(4):1187-1192, April 2000.

[203] Chunqi Chang, Zhi Ding, Sze Fong Yau, and Francis H Y Chan, ``A Matrix-Pencil Approach to Blind Separation of Colored Nonstationary Signals", IEEE Transactions on Signal Processing, SP-48(3):900-907, March 2000.

[204] J.E. Mooney, Z. Ding, and L.S. Riggs, "Performance Analysis of an Automated E-pulse Target Discrimination Scheme," IEEE Trans. Antenna Propagation, vol. 48, pp. 619-628, Apr. 2000.

[205] Zhi Ding and Tuan Nguyen, ``Convergence Study of A Kurtosis Maximization Algorithm for Blind Signal Separation and Antenna Beamforming", IEEE Transactions on Signal Processing, 48(6):1587 -1596, June 2000.

[206] Junqiang Shen and Zhi Ding, ``Direct Blind MMSE Channel Equalization Based on Second Order Statistics", IEEE Transactions on Signal Processing, SP-48(4): 1015-1022, April 2000.

[207] Erwei Bai and Zhi Ding, ``Zero-Forcing Equalizability of FIR and IIR Multi-Channel Systems with and without Perfect Measurements", IEEE Transactions on Communications, vol.48, pp.~17-22, Jan. 2000.

[208] Erwei Bai and Zhi Ding, ``Invertibility of Sampled Data Systems", IEEE Transactions on Circuits and Systems, pp.~279-289, March 2000.

[209] Erwei Bai and Zhi Ding, ``Zero of Sampled Data Systems Represented by FIR Models", Automatica, vol.36, No.1, pp.121-123, , Jan. 2000.

[210] K. K. Borah, R. A. Kennedy, Z. Ding, and I. Fijalkow, ``Sampling and Profiltering Effects on Blind Equalizer Design", IEEE Transactions on Signal Processing, SP-49(1):209-218, Jan. 2000.

[211] J. K. Tugnait, L. Tong and Z. Ding, ``Single-User Channel Estimation and Equalization," IEEE Signal Processing Magazine, vol. 17, no. 3, pp. 17-28, 2000.

[212] J.K. Tugnait and Z. Ding, ``Channel Estimation, Equalization and Synchronization," pp. 14-16 in Highlights of Signal Processing for Communications, G.B. Giannakis (Ed.), IEEE Signal Processing Magazine, vol. 16, no. 3, pp. 14-50, 1999.

[213] J.E. Mooney, Z. Ding, and L.S. Riggs, `` Performance Analysis of a GLRT in Late-Time Radar Target Detection," Journal of Electromagnetic Waves and Applications vol. 13, pp. 1339-1341, 1999; also in Progress in Electromagnetic Research, vol. 24, pp. 77-96, 1999.

[214] Tongtong Li and Zhi Ding, ``Joint Transmitter-Receiver Optimization for Non-maximally Decimated Filterbank Precoding Systems", IEEE Transactions on Signal Processing, vol. 47, pp.2407-2414, Sept. 1999.

[215] Jie Zhu, X.-R. Cao and Z. Ding, ``An Algebraic Principle for Blind Separation of White Non-gaussian Sources", Signal Processing, vol.76, pp.105-115, 1999.

[216] Z. Mao and Zhi Ding, ``A Non-parametric Phase Estimation Method for SIMO Systems based on Second Order and Higher Order Statistics," IEEE Trans. on Signal Processing, pp. 843-847, March 1999.

[217] Jie Zhu, Zhi Ding and Xi-Ren Cao, ``Column-anchored Zeroforcing Blind Equalization for Multiuser Wireless FIR Channels", IEEE Journal on Selected Areas in Communications, pp.411-423, March 1999.

[218] Jon E. Mooney, Z. Ding, and L.S. Riggs, ``Robust Target Identification in White Gaussian Noise for Ultra-Wideband Radar Systems," IEEE Trans. Antenna and Propagation, vol.46, pp.1817-1823, Dec. 1998.

[219] Junqiang Shen and Zhi Ding, ``Edge Decision Assisted Decorrelators for Asynchronous CDMA Channels", IEEE Transactions on Communications, pp. 438-445, March 1998.

[220] Zhi Ding and Ge Li, ``Single Channel Blind Equalization for GSM Cellular Systems", IEEE Journal on Selected Areas of Communications, vol.16, pp.1493-1505, October 1998.

[221] Raul A. Casas, C. Richard Johnson Jr., Rodney A. Kennedy, Zhi Ding, and Roberto Malamut, ``Blind Adaptive Decision Feedback Equalization: A Class of Channels Resulting in Ill-

convergence from A Zero Initialization", Int. Journal of Adaptive Control and Signal Processing, vol.12, pp.~173-193, March 1998.

[222] Tuan Nguyen and Zhi Ding, ``Blind CMA Beamforming For Narrowband Signals with Multipath Arrivals", Int. Journal of Adaptive Control and Signal Processing, vol.12, pp.~157-172, March 1998.

[223] Darren B. Ward, Zhi Ding, and Rodney A. Kennedy, ``DOA Estimation for Broadband Signals Using Frequency Invariant Beamforming", IEEE Transactions on Signal Processing, 46(3), pp.~1463-1469, May 1998.

[224] Zhi Ding, ``Matrix Outer-product Decomposition Method for Blind Multiple Channel Identification," IEEE Trans. on Signal Processing, 45(12), pp.~3053-3061, 1997.

[225] Z. Ding, ``On Convergence Analysis of Fractionally Spaced Adaptive Blind Equalizers," IEEE Transactions on Signal Processing, pp.~650-657, March 1997.

[226] Z. Ding, ``Multipath Channel Identification Based on Partial System Information", IEEE Transactions on Signal Processing, pp.~235-240, Jan. 1997.

[227] Z. Ding, ``Characteristics of Band-limited Channels Un-identifiable from Second Order Cyclostationary Statistics" IEEE Signal Processing Letters, 3(5):150-152, May 1996.

[228] Y. Li, K. J. R. Liu, and Z. Ding, ``Length-and Cost-dependent Local Minima of Unconstrained Blind Channel Equalizers," IEEE Transactions on Signal Processing, 44(11):2726-2735, 1996.

[229] Y. Li and Z. Ding, ``Global Convergence of Fractionally Spaced Godard Adaptive Equalizers," IEEE Transactions on Signal Processing, SP-44:818-826, April 1996.

[230] Y. Li and Z. Ding, ``Convergence Analysis of Finite Length Blind Adaptive Equalizers," IEEE Transactions on Signal Processing, pp. 2120-2129, September 1995.

[231] Y. Li and Z. Ding, ``A Simplified Approach to Optimum Diversity Combining and Equalization in Digital Data Transmission," IEEE Transactions on Communications, pp. 2285-2288, August 1995.

[232] Y. Li and Z. Ding, ``ARMA System Identification Based on Second Order Cyclostationarity", IEEE Transactions on Signal Processing, pp. 34983-3493, December 1994.

[233] Y. Li and Z. Ding, ``A New Nonparametric Method for Linear System Phase Recovery from Bispectrum", vol. 41, pp. 415-419, IEEE Transactions on Circuits and Systems II, May 1994.

[234] Z. Ding and Y. Li, ``On Channel Identification Based on Second Order Cyclic Spectra", IEEE Transactions on Signal Processing, vol.42, pp. 1260-1264, May 1994.

[235] Z. Ding, ``Blind Equalization Based on Joint Minimum Mean Square Error Criterion," IEEE Transactions on Communications, vol.42, pp. 648-654, Feb/March/April 1994.

[236] J. Y. Hung and Z. Ding, ``Design of Currents to Reduce Torque Ripple in Brushless DC Motors," IEE Proceedings-B, vol.140, pp. 260-266, July 1993.

[237] Z. Ding and C. R. Johnson, Jr., ``On the non-vanishing stability of undesirable equilibria for FIR Godard blind equalizers," IEEE Transactions on Signal Processing, vol.41, pp. 1940-1944, May 1993.

[238] Z. Ding, R. A. Kennedy, B. D. O. Anderson, and C. R. Johnson, Jr., ``Local Convergence of the Sato Blind Equalizer and Generalizations Under Practical Constraints", IEEE Transactions on Information Theory, vol.39, pp. 129-144, Jan. 1993.

[239] R. A. Kennedy and Z. Ding, ``Blind Adaptive Equalizers for QAM Communication Systems Based on Convex Cost Functions," Optical Engineering, vol.31, pp. 1189-1199, June 1992.

[240] Z. Ding, C. R. Johnson, Jr., and R. A. Kennedy, ``On the (Non)Existence of Local Equilibria of Godard Blind Equalizers," IEEE Transactions on Signal Processing, vol.40, pp. 2425-2432, 1992.

[241] Z. Ding and R. A. Kennedy, ``On the Whereabouts of Local Minima For Blind Adaptive Equalizers," IEEE Transactions on Circuit and Systems II, vol.39, pp. 119-223, Feb. 1992.

[242] Z. Ding, R. A. Kennedy, B. D. O. Anderson, and C. R. Johnson, Jr., ``Ill-Convergence of Godard Blind Equalizers in Data Communications," IEEE Transactions on Communications, vol. COM-39, pp. 1313-1327, 1991.

[243] Z. Ding, C. R. Johnson, Jr., and W. A. Sethares, ``Frequency-dependent Bursting in Adaptive Echo Cancellation and its Prevention using Double-talk Detectors," Int. Journal of Adaptive Control and Signal Processing, pp. 219-236, May 1990.

Conference Publications

[1] C. Feres, B.C. Levy, and Z. Ding, ``Over-the-Air Collaborative Learning in Joint Decision Making," *IEEE Global Communications Conference* pp. 3581-3586, Dec. 2022. doi: 10.1109/GLOBECOM48099.2022.10001286.

[2] S. Qi, L. D. Chamain and Z. Ding, ``Hierarchical Training for Distributed Deep Learning Based on Multimedia Data over Band-Limited Networks," IEEE International Conference on Image Processing (ICIP), 2022, pp. 2871-2875, doi: 10.1109/ICIP46576.2022.9897383.

[3] A. Jalali, Y. Shi and Z. Ding, ``Robust Wirtinger Flow Algorithm for Channel Coded Blind Demixing," ICC 2022 - IEEE International Conference on Communications, 2022, pp. 4498-4503, doi: 10.1109/ICC45855.2022.9838429.

[4] Z. Wang, W. Cao, X. Ling, Y. Le, J. Wang, and Z. Ding, ``Analysis of Pooling Principle in Blockchain Radio Access Network" 2022 IEEE Int. Conf. on Communications Workshop, pp. 13-18, doi: 10.1109/ICCWorkshops53468.2022.9814583.

[5] L. D. Chamain, M. C. Ilter, J. Hämäläinen and Z. Ding, Interplay between vertical sectorization and user distribution for urban NB-IoT networks," IEEE Wireless Communications and Networking Conference (WCNC), 2022, pp. 1401-1406, doi: 10.1109/WCNC51071.2022.9771892.

[6] C. Wang, A. -A. Lu, X. Gao and Z. Ding, ``Robust Precoding for 3D Massive MIMO with Riemannian Manifold Optimization," IEEE Wireless Communications and Networking Conference (WCNC), 2022, pp. 1341-1346, doi: 10.1109/WCNC51071.2022.9771720.

[7] L. D. Chamain, S. Qi and Z. Ding, ``An End-to-End Learning Architecture for Efficient Image Encoding and Deep Learning," 29th European Signal Processing Conference (EUSIPCO), 2021, pp. 691-695, doi: 10.23919/EUSIPCO54536.2021.9616312.

[8] Y. -C. Lin, T. -S. Lee and Z. Ding, ``Deep Learning for Partial MIMO CSI Feedback by Exploiting Channel Temporal Correlation," 55th Asilomar Conference on Signals, Systems, and Computers, 2021, pp. 345-350, doi: 10.1109/IEEECONF53345.2021.9723211.

[9] Yihan Zou, Kwang Taik Kim, Xiaojun Lin, Mung Chiang, Zhi Ding, Risto Wichman and Jyri Hamalainen, ``Low-Overhead Joint Beam-Selection and Random-Access Schemes for Massive Internet-of-Things with Non-Uniform Channel and Load" IEEE International Conference on Computer Communications (INFOCOM), Toronto, Canada, 6-9 July 2020.

[10] Zou, Yihan, Kwang Taik Kim, Zhi Ding, Risto Wichman, Jyri Hamalainen, Xiaojun Lin, and Mung Chiang, ``Low-overhead multi-antenna-enabled random access for machine-type communications with low mobility," In 2019 IEEE Global Communications Conference (GLOBECOM), pp. 1-6, Kona, Hawaii, USA, December 2019.

[11] L. D. Chamain and Z. Ding, ``Improving Deep Learning Classification of JPEG2000 Images Over Bandlimited Networks", Proc. 2020 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), Barcelona, Spain, 2020, pp. 4062-4066, doi: 10.1109/ICASSP40776.2020.9053778.

[12] Z. Liu, M. del Rosario, X. Liang, L. Zhang and Z. Ding, ``Spherical Normalization for Learned Compressive Feedback in Massive MIMO CSI Acquisition," 2020 IEEE International Conference on Communications Workshops (ICC Workshops), Dublin, Ireland, 2020, pp. 1-6, doi: 10.1109/ICCWorkshops49005.2020.9145171.

[13] L. D. Chamain, S.C.S. Cheung, and Z. Ding, ``Quannet: Joint Image Compression and Classification Over Channels with Limited Bandwidth," Proc. IEEE International Conference on Multimedia and Expo (ICME) pp. 338-343, Shanghai, July 2019.

[14] Z. Zhang, Z. Zhu, B. Bazor, S. Lee, Z. Ding and T. Pan, ``PIS: Wearable Pedal Iontronic Sensing for Arterial Pulses and Muscular Activities," Proc. 20th International Conference on Solid-State Sensors, Actuators and Microsystems & Eurosensors XXXIII (TRANSDUCERS & EUROSENSORS XXXIII), pp. 2492-2495, Berlin, Germany, 2019, doi: 10.1109/TRANSDUCERS.2019.8808440.

[15] Le, Y., Ling X., Wang J., Ding Z., ``Prototype design and test of blockchain radio access network," Proc. IEEE International Conference on Communications Workshops (ICC Workshops), May 20 (pp. 1-6), 2019. DOI: 10.1109/ICCW.2019.8757042

[16] C. Feres and Z. Ding, ``Low Complexity Header Compression with Lower-Layer Awareness for Wireless Networks," 2019 IEEE International Conference on Communications (ICC), Shanghai, China, 2019, pp. 1-7. doi: 10.1109/ICC.2019.8761888

[17] T. Bouchoucha and Z. Ding, ``Robust Online Social Network Inference," 2019 IEEE International Conference on Communications (ICC), Shanghai, China, 2019, pp. 1-6. doi: 10.1109/ICC.2019.8761335

[18] Q. Chen and Z. Ding, ``On Non-Intrusive Coexistence of eLAA and Legacy WiFi Networks," 2019 IEEE International Conference on Communications (ICC), Shanghai, China, 2019, pp. 1-6. doi: 10.1109/ICC.2019.8761765

[19] K. Yang, T. Jiang, Y. Shi and Z. Ding, ``Federated Learning Based on Over-the-Air Computation," 2019 IEEE International Conference on Communications (ICC), Shanghai, China, 2019, pp. 1-6. doi: 10.1109/ICC.2019.8761429

[20] J. Dong, Y. Shi and Z. Ding, ``Sparse Blind Demixing for Low-latency Signal Recovery in Massive Iot Connectivity," 2019 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), Brighton, United Kingdom, 2019, pp. 4764-4768. doi: 10.1109/ICASSP.2019.8683324

[21] C. Jiang, W. Wu, and Zhi Ding ``The Design of Transport Block-Based ROHC U-Mode for LTE Multicast"> IEEE Global Communications Conference (GLOBECOM) Abu Dhabi, United Arab Emirates, 9-13 Dec. 2018. doi: 10.1109/GLOCOM.2018.8648067

[22] K. Wang and Zhi Ding ``Joint Tourbo Receiver for LDPC-coded MIMO Systems based on Semi-Definite Relaxation" *IEEE 88th Vehicular Technology Conference* Chicago, IL, August 27-30, 2018. doi:10.1109/VTCFall.2018.8690886.

[23] A. Jalali and Zhi Ding ``A Joint Detection and Decoding Receiver Design for Polar Coded MIMO Wireless Transmissions" IEEE International Symposium on Information Theory Val, CO, USA, 17-22 June 2018. doi: 10.1109/ISIT.2018.8437879

[24] K. Yang, Y. Shi, and Z. Ding. ``Low-Rank Optimization for Data Shuffling in Wireless Distributed Computing", In 2018 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), pp. 6343-6347. IEEE, 2018.

[25] C. Feres, W. Wu and Z. Ding, ``A Markovian ROHC Control Mechanism Based on Transport Block Link Model in LTE Networks," IEEE International Conference on Communications (ICC), Kansas City, MO, USA, 2018, pp. 1-7. doi: 10.1109/ICC.2018.8422165

[26] H. M. Elmaghraby, K. Liu and Z. Ding, ``Femtocell Scheduling as a Restless Multiarmed Bandit Problem Using Partial Channel State Observation," IEEE International Conference on Communications (ICC), Kansas City, MO, USA, 2018, pp. 1-6. doi: 10.1109/ICC.2018.8422619

[27] L. Liang, S. Xie, G. Y. Li, Z. Ding and X. Yu, ``Graph-Based Radio Resource Management for Vehicular Networks", IEEE International Conference on Communications (ICC), Kansas City, MO, USA, 2018, pp. 1-6. doi: 10.1109/ICC.2018.8422585

[28] H. Lu, G.Liu, R. Proietti, V. Squitieri, K. Zhang, A. Castro, Q. J. Gu, Z. Ding, and S. B. Yoo, ``mmWave beamforming using photonic signal processing for future 5G mobile systems," Proc. Optical Fiber Communication Conference , pp. M4J-3, Optical Society of America, March 2018.

[29] G. Liu, K. Zhang, R. Proietti, H. Lu, Z. Ding, and S. B. Yoo, ``First Demonstration of FPGA-based Hitless Flexible Receiver with Blind Modulation Format Identification", Proc. Optical Society of America Optical Fiber Communication Conference, pp. W2A-45, Mar. 2018.

[30] Q. Wei, L. Wang, Z. Feng and Z. Ding, ``Cooperative coexistence and resource allocation for V2X communications in LTE-unlicensed," Proc. 15th IEEE Annual Consumer Communications & Networking Conference (CCNC), Las Vegas, NV, 2018. doi: 10.1109/CCNC.2018.8319219

[31] H. Wang, P. Shetty and Z. Ding, ``Low Complexity Node Clustering in Cloud-RAN for Service Provisioning and Resource Allocation," *GLOBECOM - 2017 IEEE Global Communications Conference,* Singapore, 2017, pp. 1-6. doi: 10.1109/GLOCOM.2017.8254979

[32] T. Bouchoucha, C. N. Chuah and Z. Ding, ``Finding Link Topology of Large Scale Networks from Anchored Hop Count Reports," *GLOBECOM - 2017 IEEE Global Communications Conference,* Singapore, 2017, pp. 1-6. doi: 10.1109/GLOCOM.2017.8253952

[33] X. Ling, J. Wang, X. Liang, Z. Ding, C. Zhao and X. Gao, ``Biased Beamforming for Multi-LED OFDM in Visible Light Communications," *GLOBECOM - 2017 IEEE Global Communications Conference,* Singapore, 2017, pp. 1-6. doi: 10.1109/GLOCOM.2017.8254777

[34] K. Yang, Y. Shi and Z. Ding, ``Generalized matrix completion for low complexity transceiver processing in cache-aided Fog-RAN via the Burer-Monteiro approach," 2017 IEEE Global Conference on Signal and Information Processing (GlobalSIP), Montreal, QC, 2017, pp. 863-867. doi: 10.1109/GlobalSIP.2017.8309083

[35] L. Jing, H. Wang, C. He, and Z. Ding, ``Joint Channel Estimation and Detection of High Rate CCK Signaling in Underwater Communications", Proc. IEEE Wireless Communications and Networking Conference (WCNC), San Francisco, USA, Mar. 2017.

[36] Chen Jiang, Wenhao Wu, and Z. Ding, ``LTE Multimedia Broadcast Multicast Service Provisioning Based on Robust Header Compression." IEEE Wireless Communications and Networking Conference (WCNC), San Francisco, CA, USA, May 2017.

[37] Chen Jiang, Wenhao Wu, and Z. Ding, ``IP packet header compression and user grouping for LTE Multimedia Broadcast Multicast Services, " Proc. 2017 International Conference on Computing, Networking and Communications (ICNC), pp. 52-57, January 2017.

[38] K. Yang, Y. Shi, J. Zhang, Z. Ding and K. B. Letaief, ``A low-rank approach for interference management in dense wireless networks," 2016 IEEE Global Conference on Signal and Information Processing (GlobalSIP), Washington, DC, 2016, pp. 708-712. doi: 10.1109/GlobalSIP.2016.7905934

[39] Yang, Kai, Yuanming Shi, and Zhi Ding, ``Low-rank matrix completion for mobile edge caching in fog-RAN via riemannian optimization." IEEE Global Communications Conference (GLOBECOM), pp. 1-6, Dec. 2016.

[40] Huan Tang, Zhi Ding, and Bernard C. Levy, ``D2D Neighbor Discovery and Resource Scheduling through Demodulation Reference Signal." IEEE 84th Vehicular Technology Conference (VTC-Fall), September 2016.

[41] H. Tang and Z. Ding, "Monotone optimization for power control of D2D underlay with partial CSI," 2016 IEEE International Conference on Communications (ICC), Kuala Lumpur, 2016, pp. 1-6. doi: 10.1109/ICC.2016.7511619

[42] H. Wang and Z. Ding, "Joint power and rate optimization for co-channel small cells using Frank-Wolfe algorithm," 2016 IEEE International Conference on Communications (ICC), Kuala Lumpur, 2016, pp. 1-6. doi: 10.1109/ICC.2016.7511345

[43] Kun Wang and Zhi Ding, ``Robust receiver design based on FEC code diversity in pilot-contaminated multi-user massive MIMO systems", Proc. 2016 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), Shanghai, China, 2016. Pages: 3426 - 3430.

[44] Zhi Quan; Muyang Ye; Zhi Ding; Shuguang Cui ``Optimal linear cooperation for signal classification", Proc. 2016 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), Shanghai, China, 2016. Pages: 3631 - 3635.

[45] H. M. Elmaghraby and Z. Ding, ``Cognitive Femtocell Scheduling and Power Allocation Based on Channel Quality Report," 2015 IEEE Global Communications Conference (GLOBECOM), San Diego, CA, 2015, pp. 1-6. doi: 10.1109/GLOCOM.2015.7417849

[46] Xintong Ling; Jiaheng Wang; Xiao Liang; Zhi Ding; Chunming Zhao ``Joint Offset and Power Optimization for Visible Light DCO-OFDM Systems," IEEE Global Communications Conference (GLOBECOM) San Diego, CA, 2015.

[47] Dongrun Qin; Zhi Ding ``On Transport Capacity of Full Duplex Ad Hoc Networks," IEEE Global Communications Conference (GLOBECOM) San Diego, CA, 2015.

[48] Chen Sun; Xiqi Gao; Shi Jin; Matthaiou, M.; Zhi Ding; Chengshan Xiao, ``Beam division multiple access for massive MIMO downlink transmission", 2015 IEEE International Conference on Communications (ICC), pp. 1970 - 1975, London, UK, 2015. DOI: 10.1109/ICC.2015.7248614

[49] Huan Tang and Zhi Ding ``Resource allocation in mixed mode Device-to-Device communications", 2015 IEEE International Conference on Communications (ICC), pp. 2554-2559, London, UK, 2015. DOI: 10.1109/ICC.2015.7248709

[50] Wang, Kun, Wenhao Wu, and Zhi Ding. ``Diversity combining in wireless relay networks with partial channel state information." 2015 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), pp. 3138-3142, Brisbane, Australia, May 2015.

[51] Elmaghraby, Hesham M., Dongrun Qin, and Zhi Ding, ``Downlink Scheduling and Power Allocation in Cognitive Femtocell Networks," In Cognitive Radio Oriented Wireless Networks [Proc. 10th Intl. Conf. Cognitive Radio Oriented Wireless Networks (CROWNCOM)], pp. 92-105. Springer International Publishing, Oct. 2015.

[52] Haining Wang and Zhi Ding, ``Power control and rate allocation for outage balancing in femtocell networks," IEEE Global Communications Conference (GLOBECOM), Austin, TX, December 2014.

[53] Alexis Dowhuszko, Jyri Hamalainen, and Zhi Ding, ``Opportunistic interference avoidance scheduling for underlay cognitive radio networks", 9th International Conference on Cognitive Radio Oriented Wireless Networks (CROWNCOM), July 2014.

[54] Ahmed R. Elsherif, Zhi Ding, Xin Liu, ``A Resource Allocation Scheme for Heterogeneous Networks Using Dynamic Programming Approach ," in IEEE 79th Vehicular Technology Conference, VTC-Spring 2014, May 2014, pp. 1-6.

[55] W. Wu, K. Wang, Z. Ding, and C. Xiao, ``Cooperative multi-cell MIMO downlink precoding for finite-alphabet inputs", in Proc. IEEE Int. Conf. Acoust., Speech, Signal Process. (ICASSP), pp. 464-468, Florence, Italy, May 2014, doi:10.1109/ICASSP.2014.6853639

[56] K. Wang, W. Wu, and Z. Ding, ``Joint detection and decoding of LDPC coded distributed space-time signaling in wireless relay networks via linear programming," in Proc. IEEE Int. Conf. Acoust., Speech, Signal Process. (ICASSP), pp. 1906-1910, Florence, Italy, May 2014, DOI: 10.1109/ICASSP.2014.6853930

[57] Ahmedin, A.; Elsherif, A.R.; Xin Liu; Hamalainen, J.; Wichman, R., ``Macrocell resource adaptation for improved femtocell deployment and interference management," 2014 World Congress on Computer Applications and Information Systems (WCCAIS), pp.1-6, 17-19 Jan. 2014, Tunisia.

[58] Huan Tang, Zhi Ding, S. J. B. Yoo, and Jyri Hamalainen. "Outage constrained joint precoding for D2D underlay cellular networks." In Global Communications Conference (GLOBECOM), 2013 IEEE, pp. 3540-3545. IEEE, 2013.

[59] Elsherif, Ahmed R.; Chen, Wei-Peng; Ito, Akira; Ding, Zhi, ``Design of dual-access-technology femtocells in enterprise environments," IEEE 24th International Symposium on Personal Indoor and Mobile Radio Communications (PIMRC), pp.2774-2779, 8-11 Sept. 2013. doi: 10.1109/PIMRC.2013.6666619

[60] Kun-Yu Wang, Haining Wang, Zhi Ding and Chong-Yung Chi, ``A Low-Complexity Algorithm for Worst-Case Utility Maximization in Multiuser MISO Downlink," in 2013 IEEE 78th Vehicular Technology Conference (VTC Fall), pp.1-5, 2-5 Sept. 2013.

[61] A. R. Elsherif, Wei-Peng Chen, A. Ito, Zhi Ding, "Adaptive small cell access of licensed and unlicensed bands," IEEE International Conference on Communications (ICC), pp.6327,6332, 9-13 June 2013. doi: 10.1109/ICC.2013.6655621

[62] H. Wang, Z. Ding, M. Cierny, and R. Wichman, IEEE International Conference on Communications (ICC), pp.5183-5187, Budapest 9-13 June 2013. doi: 10.1109/ICC.2013.6655407

[63] Qing Ji, Michael Ho, Rong Zheng, Zhi Ding and Gangbing Song, ``An exploratory study of stress wave communication in concrete structures" SMART STRUCTURES AND SYSTEMS (Proc. 6th Int. Conf. on Structural Health Monitoring of Intelligent Infrastructure, vol. 15, no. 1, pp. 135-150, 2015, Hong Kong.

[64] Huan Tang; Chenxi Zhu; Zhi Ding, "Cooperative MIMO precoding for D2D underlay in cellular networks," IEEE International Conference on Communications (ICC), pp.5517-5521, 9-13 June 2013.

[65] Dowhuszko, A.A.; Hamalainen, J.; Elsherif, A.R.; Zhi Ding ``Performance of transmit beamforming for interference mitigation with random codebooks," 8th International Conference on Cognitive Radio Oriented Wireless Networks (CROWNCOM), pp. 190-195, 2013.

[66] A. Elsherif, Z. Ding, X. Liu, J. Hamalainen, and R. Wichman, ``Inference Driven Dynamic Access Scheme for Interference Management in Heterogeneous Networks", 8th International Conference on Cognitive Radio Oriented Wireless Networks (CROWNCOM), pp. 178-183, 2013.

[67] A. R. Elsherif, Zhi Ding, Xin Liu, J. Hamalainen, ``Shadow chasing enhancement in resource allocation for heterogeneous networks", IEEE Global Communications Conference (GLOBECOM), Page(s): 5531 - 5536, Anaheim, CA, 2012.

[68] Yong Li ; Lin Wang ; Zhi Ding ``Linear programming based joint detection of LDPC coded MIMO systems," IEEE Global Communications Conference (GLOBECOM), Page(s): 4043-48, Anaheim, CA, 2012.

[69] A.R. Elsherif, A. Ahmedin, Zhi Ding, and Xin Liu `` Adaptive precoding for femtocell interference mitigation", Proc.IEEE International Conference on Communications (ICC), Page(s): 4315 - 4320, 10-15 June 2012.

[70] Xiao Liang, Zhi Ding, and Chengshan Xiao, ``On linear precoding of non-regenerative MIMO relays for QAM inputs"Proc. IEEE International Conference on Communications (ICC), Page(s): 2439 - 2444, 10-15 June 2012

[71] Yongpeng Wu, Chengshan Xiao, Zhi Ding, Xiqi Gao, and Shi Jin ``Linear MIMO precoding in multi-antenna wiretap channels for finite-alphabet data", Proc. IEEE International Conference on Communications (ICC), Page(s): 2156 - 2160, 10-15 June 2012

[72] Yongpeng Wu, Mingxi Wang, Chengshan Xiao, Zhi Ding, and Xiqi Gao ``Linear precoding of finite alphabet signals in multi-antenna broadcast channels", Proc. IEEE International Conference on Communications (ICC), Page(s): 4257 - 4261, 10-15 June 2012.

[73] Huy-Dung Han, Chenxi Zhu, Yueqiao Xu, Yi Wang, and Zhi Ding Joint transmission using global codeword and codebook design for coordinated multipoint processing (CoMP) , Proc. 2012 IEEE Globecom Workshops (GC Wkshps), Page(s): 1118 - 1122, Anaheim, CA, USA, Dec. 2012.

[74] Enyang Xu, Zhi Ding, Soura Dasgupta, ``Urban source localization based on time of arrival measurement and street information" Proc. IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP) Page(s): 2621 - 2624, Kyoto, Japan, 25-30 March 2012.

[75] Hema Kumari Achanta, Soura Dasgupta, Zhi Ding, ``Optimum sensor placement for localization in three dimensional under log normal shadowing'', 5th International Congress on Image and Signal Processing (CISP) , pp.~1898-1901, 16-18 Oct. 2012

[76] Zhe Jiang, Hai-yan Wang, Wang, Zhi Ding, ``Joint Symbol Timing and Channel Estimation in Two-Way Multiple Antenna Relay Networks'', Proc. IEEE Vehicular Technology Conference (VTC Fall), 3-6 Sept. 2012

[77] Yang Zhang, Jiandong Li, Lihua Pang, and Zhi Ding ``Maximizing lifetime in multi-source multi-relay non-regenerative OFDM networks'', Prof. IEEE 23rd International Symposium on Personal Indoor and Mobile Radio Communications (PIMRC), Page(s): 2259 - 2262, 9-12 Sept. 2012.

[78] Jacklin, N.; Zhi Ding `` A Convex Optimization Approach to Reducing Peak-to-Average-Power Ratio in OFDM'', 2011 IEEE International Symposium on Circuits and Systems (ISCAS), 2011, Page(s): 973 - 976.

[79] Chengshan Xiao; Zheng, Y.R.; Zhi Ding, ``Design optimization of linear precoders for complex vector gaussian channelswith finite alphabet inputs'', 2011 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), 2011, Page(s): 3272 - 3275.

[80] Binbin Guan; Fontaine, N.K.; Scott, R.P.; Geisler, D.J.; Djordjevic, S.S.; Ibrahim, S.; Cheung, S.; Tiehui Su; Pomerene, A.T.; Seaford, L.L.; Danziger, S.; Zhi Ding; Yoo, S.J.B., ``Dynamic sub-20 ns reconfiguration of a silicon CMOS photonic filter and filter shape measurement'', 2011 Conference on Lasers and Electro-Optics (CLEO), 2011, Page(s): 1 - 2

[81] Lapiccirella, F.E.; Keqin Liu; Zhi Ding, ``Multi-Channel Opportunistic Access Based on Primary ARQ Messages Overhearing'' Communications (ICC), 2011 IEEE International Conference on Publication Year: 2011 , Page(s): 1 - 5

[82] Yang Zhang; Jiandong Li; Lihua Pang; Zhi Ding, ``On Precoder Design for Amplify-and-Forward MIMO Relay Systems'', 2011 IEEE Vehicular Technology Conference (VTC Fall), 2011, Page(s): 1 - 6

[83] Meng Shen; Chunming Zhao; Xiao Liang; Zhi Ding, ``Best-Effort Interference Alignment in OFDM Systems with Finite SNR'', 2011 IEEE International Conference on Communications (ICC), 2011, Page(s): 1 - 6.

[84] Yang Zhang, Jiandong Li, Lihua Pang, Zhi Ding, ``Iterative InterCarrier Interference mitigation for mobile MIMO-OFDM systems'', 2011 IEEE 22nd International Symposium on Personal Indoor and Mobile Radio Communications (PIMRC), 2011, Page(s): 959 - 963.

[85] Huy-Dung Han; Zhi Ding; Junqiang Hu; Dayou Qian, ``On Steepest Descent Adaptation: A Novel Batch Implementation of Blind Equalization Algorithms,'' 2010 IEEE Global Telecommunications Conference , Miami, FL, 2010, Page(s): 1 - 6.

[86] Senhua Huang, Xin Liu, and Zhi Ding, ``Distributed Power Control for Cognitive User Access based on Primary Link Control Feedback'', Proc. Conference on Computer Communications (INFOCOM 2010), 14-19 March 2010, Page(s): 1-9, San Diego, USA.

[87] Enyang Xu, Zhi Ding, and Soura Dasgupta, ``Robust and Low Complexity Source Localization in Wireless Sensor Networks Using Time Difference of Arrival Measurement'',, Proceedings of the IEEE Wireless Communications and Networking Conference (WCNC), April 2010, Sydney, Australia, Page(s): 18-21.

[88] Dasgupta, S.; Ibeawuchi, S.C.; Zhi Ding; ``Optimum sensor placement for localization under log-normal shadowing'', 2010 International Symposium on Communications and Information Technologies (ISCIT), 2010; Page(s): 204 - 208.

[89] Huy-Dung Han and Zhi Ding, ``A blind channel shortening criterion based on high-order cumulants'' IEEE International Conf. on Acoustics, Speech and Signal Processing, 14-19 March 2010, Page(s):3210 - 3213.

[90] Enyang Xu, Zhi Ding, Soura Dasgupta, ``Wireless source localization based on time of arrival measurement'' IEEE International Conf. on Acoustics, Speech and Signal Processing, 14-19 March 2010, Page(s):2842 - 2845.

[91] Ibrahim, S.; Luo, L.W.; Djordjevic, S.S.; Poitras, C.B.; Zhou, L.; Fontaine, N.K.; Guan, B.; Cheung, S.; Ding, Z.; Okamoto, K.; Lipson, M.; Yoo, S.J.B.; ``Fully reconfigurable silicon photonic lattice filters with four cascaded unit cells," Optical Fiber Communication (OFC), 21-25 Mar. 2010, Page(s):1 - 3.

[92] S. Bashar and Z Ding, ``Optimum Power Allocation against Information Leakage in Wireless Network" IEEE Global Telecommunications Conference, Nov. 30 2009-Dec. 4, 2009, Page(s):1-6.

[93] Huy-Dung Han and Zhi Ding, ``A Convex Optimization Approach to Blind Channel Shortening in Multicarrier Modulations," IEEE Global Telecommunications Conference, Nov. 30 2009-Dec. 4, 2009.

[94] Huy-Dung Han, Junqiang Hu, and Zhi Ding, ``A bandwidth efficient design of IM/DD optical OFDM," Conference on Lasers and Electro-Optics and Conference on Quantum electronics and Laser Science Conf. (CLEO/QELS 2009), 2-4 June 2009 Page(s): 1 - 2

[95] Senhua Huang, Xin Liu, and Zhi Ding, ``Optimal Sensing-Transmission Structure for Dynamic Spectrum Access", Proc. 28th IEEE Conference on Computer Communications (INFOCOM 2009), 19-25 April 2009, Page(s):2295 - 2303, Rio de Janeiro, Brazil.

[96] Linjie Zhou; Djordjevic, S.S.; Fontaine, N.K.; Zhi Ding; Okamoto, K.; Yoo, S.J.B., ``Silicon microring resonator-based reconfigurable optical lattice filter for on-chip optical signal processing" IEEE LEOS Annual Meeting Conference Proceedings (LEOS), 2009, Page(s): 501 - 502.

[97] Lapiccirella, Fabio E.; Huang, Senhua; Liu, Xin; Ding, Zhi; ``Feedback-based access and power control for distributed multiuser cognitive networks" Information Theory and Applications Workshop, 2009 8-13 Feb. 2009 Page(s):85 - 89

[98] Muhammad, Zia; Chen Meng, Zhi Ding, ``Blind detection of high rate orthogonal space-time block codes IEEE International Conference on Acoustics, Speech and Signal Processing, 19-24 April 2009 Page(s):2745 - 2748

[99] Huang, River; Zhi Ding, ``Precoder design for MIMO broadcast channels with power leakage constraints," IEEE International Conference on Acoustics, Speech and Signal Processing, 19-24 April 2009 Page(s):2385 - 2388

[100] Chang, Chunqi; Zhi Ding; Hung, Yeung Sam; ``Nonnegative Network Component Analysis by Linear Programming for Gene Regulatory Network Reconstruction" Proceedings of the 8th International Conference on Independent Component Analysis and Signal Separation, 2009. Pages: 395 - 402

[101] S. Bashar and Z. Ding, "Optimum routing protection against cumulative eavesdropping in multihop wireless networks", Proceedings of 2009 MILCOM, October 2009.

[102] S. Dasgupta, S.-R.C. Ibeawuchi, and Zhi Ding; ``Source localization using a maximum likelihood/semidefinite programming hybrid " 9th Int. Symp. on Communications and Information Technology, 28 - 30 Sept. 2009, Page(s):376 - 381

[103] S.D. Chitte, S. Dasgupta, and Zhi Ding, ``Source Localization from Received Signal Strength Under Log-Normal Shadowing: Bias and Variance" 2nd International Congress on Image and Signal Processing, 2009.

[104] Chang, Chunqi; Hung, Yeung Sam; Ding, Zhi; ``A new optimization algorithm for network component analysis based on convex programming" IEEE International Conf. on Acoustics, Speech and Signal Processing, 19-24 April 2009 Page(s):509 - 512

[105] Senhua Huang, Xin Liu, and Zhi Ding, ``Opportunistic Spectrum Access in Cognitive Radio Networks", INFOCOM 2008: IEEE 27th Conference on Computer Communications, 13-18 April. 2008, Page(s): 1427-1435.

[106] Jingyu Kang, Bo Zhou, Zhi Ding, and Shu Lin, ``LDPC coding schemes for error control in a multicast network", IEEE International Symposium on Information Theory, page(s): 822-826, 6-11 July 2008.

[107] S Bashar and Z Ding, ``Efficient Algorithms for Resource Allocation in Heterogeneous OFDMA Networks", 2008 IEEE Global Telecommunications Conference, Nov. 30 2008-Dec. 4 2008.

[108] M. Zia and Z Ding, ``Joint ARQ Receiver Design for Bandwidth Efficient MIMO Systems", 2008 IEEE Global Telecommunications Conference, Nov. 30 2008-Dec. 4 2008.

[109] J Kang, L Zhang, Z Ding, and S Lin, ``A Two-Stage Iterative Decoding of LDPC Codes for Lowering Error Floors", 2008 IEEE Global Telecommunications Conference, Nov. 30 2008-Dec. 4 2008.

[110] S.-R.C. Ibeawuchi, S. Dasgupta, Cheng Meng, and Zhi Ding, ``Source localization using a maximum likelihood/semidefinite programming hybrid " Proc. 3rd International Conference on Sensing Technology, Nov. 30 2008-Dec. 3 2008 Page(s):585 - 588.

[111] S Huang, X Liu, Z Ding, ``On Optimal Sensing and Transmission Strategies for Dynamic Spectrum Access," DySPAN 2008: New Frontiers in Dynamic Spectrum Access Networks, 14-17 October 2008.

[112] S Bashar, Z Ding, and Y. Li ``QOS aware resource allocation for heterogeneous multiuser OFDM wireless networks" , IEEE Workshop on Signal Processing Advances in Wireless Communications, page(s): 535-539, 6-9 July 2008.

[113] Z. Shi, C. Zhao, and Z. Ding, ``Low Complexity Eigenmode Selection for MIMO Broadcast Systems with Block Diagonalization" IEEE International Conference on Communications, 19-23 May 2008 Page(s):3976 - 3981.

[114] W. Xu, C. Zhao, and Z. Ding, ``Efficient user Scheduling under Low Rate Feedback for Correlated MIMO Broadcast Channels" IEEE International Conference on Communications, 19-23 May 2008 Page(s):3976 - 3981.

[115] He Huang and Zhi Ding, ``Ergodic capacity maximizing MIMO ARQ precoder design based on channel mean information", Information Theory and Applications Workshop, 2008, Jan. 27 2008-Feb. 1 2008 Page(s):58 - 62

[116] Huang, Senhua; Ding, Zhi; Liu, Xin; ``Non-Intrusive Cognitive Radio Networks Based on Smart Antenna Technology", IEEE Global Telecommunications Conference, 26-30 Nov. 2007, Page(s):4862 - 4867.

[117] T. Kazemi and Z. Ding, ``Scalable MIMO ARQ Retransmission using Differential Space-Time Block Codes," Military Communications Conference, 29-31 October 2007.

[118] Ye, Xiaohui; Liu, Xin; Yoo, S. J. Ben; Ding, Zhi; Priority Collision Resolution - Distributed Coordination Function for Distributed Wireless Networks," IEEE Global Telecommunications Conference, 26-30 Nov. 2007 Page(s):4708 - 4713

[119] C. Chang, Z. Ding, Y.S. Hung, P.C.W. Fung, ``Fast Network Component Analysis for Gene Regulation Networks," 2007 IEEE Workshop Machine Learning for Signal Processing, page(s): 21-26, 27-29 August 2007

[120] Q. Ling, T. Li, and Z. Ding, ``A Novel Concept: Message Driven Frequency Hopping (MDFH)", 2007 IEEE International Conference on Communications, Glasgow, Scotland, 24-28 June 2007 Page(s):5496 – 5501.

[121] Ohara, K.; Hernandez, V.J.; Du, Y.; Ding, Z.; Yoo, S.J.B.; Horiuchi, Y.; ``Resiliency of OCDM-PON against near-far problem", Proc. 2007 Optical Fiber Communication and the National Fiber Optic Engineers Conference (OFC/NFOEC 2007), 25-29 March 2007, Anaheim, CA, pp. 1-3,

[122] Fontaine, N.K. Yang, C. Scott, R.P. Hernandez, V.J. Soares, F. Broeke, R. Perry, K. Nowak, G. Cong, W. Okamoto, K. Kolner, B.H. Ding, Z. Heritage, J.P. Yoo, S.J.B. ``SPECTS O-CDMA field trials using subpicosecond pulses and integrated encoders/decoders across 80.8-km and 150-km links", Proc. Photonics in Switching Conference, pp. 95-96, 19-22 August 2007.

[123] Xin Liu and Zhi Ding, ``ESCAPE: A Channel Evacuation Protocol for Spectrum-Agile Networks," 2nd IEEE International Symposium on New Frontiers in Dynamic Spectrum Access Networks (DySPAN), Dublin, Ireland, 17-20 April 2007, Page(s):292 - 302.

[124] Du, Y.; Yoo, S.J.B.; Ding, Z. ``Non-uniform spectral encoding of measured mode-locked laser pulses for performance enhancement of optical CDMA networks," 2006 Optical Fiber Communication Conference (OFC), 5-10 March 2006, Anaheim, CA.

[125] Haitong Sun, and Zhi Ding, ``Optimal Linear Transceiver Design for Mimo Flat Fading Channels Exploiting Channel Mean Feedback", IEEE Global Telecommunications Conference, Nov., 2006.
[126] Song, Shumei; Lin, Shu; Abdel-Ghaffar, Khaled; Ding, Zhi; Fossorier, Marc, "Cyclic Codes for Correcting Bursts of Errors or Erasures With Iterative Decoding" IEEE Global Telecommunications Conference, Nov., 2006.
[127] Dong, Xiaofei; Ding, Zhi; ``Downlink MIMO Channel Estimation for Transmission Precoding" IEEE Global Telecommunications Conference, Nov., 2006. .
[128] Evans, Ashley A.; Ben Yoo, S. J.; Ding, Zhi; ``Space-Time Coded Modulation and Detection in Coherent Freespace Optical Communications", IEEE Global Telecommunications Conference, Nov., 2006.
[129] Yang, C. ; Cong, W. ; Xue, F. ; Hernandez, V. J. ; Scott, R. P. ; Heritage, J. P. ; Kolner, B. H. ; Ding, Z. ; Yoo, S. J. B. ; ``Experimental Investigation on Using Phase Mask in Spectral-Phase-Encoded O-CDMA for Security Enhancement", European Conference on Optical Communications (ECOC), 24-28 Sept. 2006, Cannes, France, Page(s): 1 - 2.
[130] Chang, C.Q.; Hung, Y.S.; Fung, P.C.W.; Ding, Z.; Network Component Analysis for Blind Source Separation 2006 International Conference on Communications, Circuits and Systems Proceedings, Volume 1, 25-28 June 2006, Page(s):323 - 326.
[131] N. Ammar and Zhi Ding, ``Semi-Coherent Detection for Differential Space-Time Codes", Proceedings of 2006 IEEE International Conference on Communications, Istabul, Turkey, 2006.
[132] H. Sun and Z. Ding, ``Robust Precoder Design for MIMO Packet Retransmission over Imperfectly Known Flat Fading Channels", Proceedings of 2006 IEEE International Conference on Communications, Istabul, Turkey, 2006.
[133] Haitong Sun, Zhi Ding, and Chunming Zhao, ``Iterative Design of MIMO ARQ Transceiver for Decision Feedback Detection", IEEE 7th Workshop on Signal Processing Advances in Wireless Communications, 2-5 July 2006.
[134] X. Dong and Z. Ding, ``Channel Estimation and Bit-loading in Wireless Multicarrier Systems based on Decimated Signal Feedback" , Proceedings of 2006 IEEE International Conference on Communications, Istabul, Turkey, 2006.
[135] J. Roberson and Zhi Ding, ``A BICM Approach to Type-II Hybrid ARQ", Proceedings of 2006 IEEE International Conference on Acoustics, Speech and Signal Processing, Volume 4, 2006 Page(s):IV-273 - IV-276, 2006, Toulouse, France.
[136] J. Roberson and Z. Ding, ``Integration of Hybrid ARQ and Space-Time Coding through Embebded Quasi-Orthogonal Space-Time Block Codes," Proc. 40th Annual Conference on Informaiton Sciences and Systems, pp. 547-551. 22-24 March 2206.
[137] F. Xue, Y. Du, S. J. B Yoo, and Z. Ding, `` Security issues on spectral-phase-encoded optical CDMA with phase-masking scheme", Proc. 2006 Optical Fiber Communication Conference, March 5-10, 2006.
[138] X. Dong and Z. Ding, ``MIMO Channel Estimation Based on Ambiguity Resistant Filtering and Decimated Feedback", Proc. IEEE Globecom Conference, Vol. 5, pp.2958-2963, St. Louis, MO, 28 Nov.-2 Dec. 2005.
[139] F. Xue, Z. Ding, and S. J. B. Yoo, ``Design and Analysis of Coordinated Access Schemes for Code-Limited Optical-CDMA Networks", Proc. IEEE Globecom Conference, vol. 4, pp.1930-1935, St. Louis, MO, 2005.
[140] J. Roberson, X. Dong, Z. Ding, ``Joint Data Detection for Punctured ARQ Diversity Systems", Proc. International Conference on Acoustics, Speech, and Signal Processing, pp. III-1145-1148, 2005.
[141] T. Li, Q. Ling, and Z. Ding, ``Space-Time Design for Blind Estimation and Equalization over Frequency Selective Channels", Proc. Int. Conference on Acoustics, Speech, and Signal Processing, pp. III-441-444, 2005.

[142] H. Sun, H. Samra, Z. Ding, and J. Manton, ``Constrained Capacity of Linear Precoded ARQ in MIMO Wireless Systems", Proc. Int. Conference on Acoustics, Speech, and Signal Processing, pp. III-425-428, 2005.

[143] A. A. Farid, Z.-Q. Luo, and Z. Ding, ``Blind Channel Equalization based on Second Order Statistics", Proc. Int. Conference on Acoustics, Speech, and Signal Processing, pp. III-557-560, 2005.

[144] F. Xue, Z. Ding, and S. J. B. Yoo, ``Performance Evaluation of Optical CDMA Networks with Random Media Access Schemes", Proc. 2005 Optical Fiber Communication Conference, vol. 4, 6-11 March 2005.

[145] Fei Xue, Zhi Ding, S.J.B. Yoo, ``Performance analysis for optical CDMA networks with random access schemes", Proc. IEEE Global Telecommunications Conf., Volume 3, pp.1883-1887, Nov-Dec., 2004.

[146] J. Roberson, and Z. Ding, ``Joint channel estimation and detection of partial ARQ in OFDM", Conference Record of the Thirty-Eighth Asilomar Conference on Signals, Systems and Computers, Volume 1, Page(s):662 - 666, 7-10 Nov. 2004

[147] Haitong Sun; Mihaela van der Schaar, and Zhi Ding, `` ``Joint data compression and error protection for collaborative transmission," 2004 International Conference on Image Processing, 2004, Volume 1, 24-27 Oct. 2004 Page(s):533 - 536.

[148] Larcher, Aymeric, Haitong Sun, M. van der Schaar, and Zhi Ding. ``Decentralized transmission strategy for delay-sensitive applications over spectrum agile network", Proc. 13h Intl. Packet Video Workshop, Dec. 2004.

[149] H. Sun, M. van der Schaar, and Zhi Ding, ``Joint data compression and error protection over wireless fading channels using LDPC codes" Proc. 38th Asilomar Conf. on Signals, Systems and Computers, Pacific Grove, CA, 2004, Page(s): 978 - 982 Vol.1

[150] S. Neugebauer and Z. Ding, ``A Turbo-Driven Known-modulus Blind Equalization Method", Proceedings of the 5th Workshop on Signal Processing Advances in Wireless Communications, pp. 36-40, Lisbon, Portugal, July 2004.

[151] N. Ammar and Z. Ding, ``Flat Fading Channel Estimation Under Generic Linear Space-Time Block Coded Transmissions", Proceedings of the IEEE International Communications Conference, pp.2616-2620, 2004.

[152] T. Li, Z. Ding, J. K. Tugnait, and W. Liang, ``Channel Identification and Signal Separation for Long-code CDMA Systems using Mulitple Linear Prediction Method", Proceedings of the IEEE Int. Communications Conference, pp. 2437-2441, 2004.

[153] N. Ammar and Z. Ding, ``Frequency Selective Channel Estimation in Time-Reversed Space-Time Coding",, Proceedings of the IEEE Wireless Communications and Networking Conference (WCNC), pp. 1838-1843, March 2004.

[154] T. A. Drumright and Z. Ding, ``Monte-Carlo Equalization and Estimation of Frequency Selective Channels under System Nonlinearity," Proceedings of the IEEE WCNC Conference, pp. 2432-2437, 2004.

[155] X. Dong, Z. Ding and S. Dasgupta, ``Fractional spaced dual channel estimation based on decimated feedback", Proceedings of the IEEE WCNC Conference, pp. 489-494, 2004.

[156] J. Roberson and Z. Ding, ``Joint Channel Identification in Punctured Hybrid ARQ Retransmissions", Proceedings of the IEEE WCNC Conference, pp. 2099-2104, 2004.

[157] Y. Du, S. J.B. Yoo, and Z. Ding, ``Non-uniform Spectrual Encoding for Enhanced Multi-user Performacne in Optical CDMA Networks", Proc. Conference on Lasers and Electro-Optics. Vol. 1, 2 pp. 2004.

[158] W. Cong, V. J. Hernandez, R. P. Scott, K. Li, J. P. Heritage, B. H. Kolner, Z. Ding, and S. J. B. Yoo, ``PERFORMANCE OF A 10GB/S OPTICAL CODE DIVISION MULTPLE ACCESS CHANNEL IN THE PRESENCE OF AN INTERFERER", Proceedings of the Conference on Lasers and Electro-Optics, Vol. 1, 3 pp., 2004.

[159] S. P. Neugebauer and Z. Ding, ``Blind SIMO Channel Estimation for CPM Using the Laurent Approximation", Proceedings of the IEEE Int. Symposium on Circuits and Systems (ISCAS)}, pp.676-679, 2004.

[160] J. Roberson and Zhi Ding, ``Joint semi-blind channel identification in punctured ARQ retransmissions", Proc. IEEE Int. Conf. on Acoustics, Speech, and Signal Processing, pp.II.421-4, May 2004.

[161] H. Samra, and Z. Ding, ``Sphere decoding for retransmission diversity in MIMO flat-fading channels," Proc. IEEE Int. Conf. on Acoustics, Speech, and Signal Processing, pp.IV.585-588, May 2004.

[162] H. Samra, Zhi Ding, and P. M. Hahn, ``Symbol mapping diversity design for packet retransmissions through fading channels", Proc. IEEE Global Telecommunications Conf., vol.4, pp.1989-1993, 1-5 Dec. 2003.

[163] T. A. Drumright, A. A. Tabarrok, and Zhi Ding, ``Array beamforming for long code CDMA under carrier drift", Proc. IEEE Globecom, vol.4, pp.2156-2160, 1-5 Dec. 2003.

[164] Wing-Kin Ma; Ching, P.C.; Ding, Z.; ``Efficient relaxed maximum-likelihood MPSK multiuser detection using semidefinite programming", 4th IEEE Workshop on Signal Processing Advances in Wireless Communications (SPAWC), 15-18 June 2003 Page(s):522 - 526

[165] T. Miyajima and Z. Ding, ``Multicarrier channel shortening based on second order output statistics", 4th IEEE Workshop on Signal Processing Advances in Wireless Communications (SPAWC), 15-18 June 2003 Page(s):145 - 149.

[166] Honghui Xu, Dasgupta, S. Zhi Ding ``A novel channel identification method for fast wireless communication systems with transmitter and receiver diversity," Proceedings of the 2003 International Symposium on Circuits and Systems, pp. II:9-12, 25-28 May 2003.

[167] H. Samra and Zhi Ding, ``Symbol mapping diversity in iterative decoding/demodulation of ARQ systems," IEEE International Conf. on Communications, vol.5, pp.3585-3589, May 2003.

[168] T. Li, J. K. Tugnait, and Zhi Ding, ``Channel estimation of long-code CDMA systems utilizing transmission induced cyclostationarity", Proc. IEEE Int. Conf. on Acoustics, Speech, and Signal Processing, pp.IV.105-8, April 2003.

[169] H. Samra, Zhi Ding, P.M. Hahn, ``Optimal symbol mapping diversity for multiple packet transmissions", Proc. IEEE Int. Conf. on Acoustics, Speech, and Signal Processing, pp.IV.181-4, April 2003.

[170] H. Xu, S. Dasgupta, and Zhi Ding, ``An improved feedback scheme for dual channel identification in wireless communication systems," Proc. IEEE Int. Conf. on Acoustics, Speech, and Signal Processing, pp.IV.77-80, April 2003.

[171] A. B. Parr, B. L. Cho, and Z. Ding, ``A new UWB pulse generator for FCC spectral masks", Proc. 57th IEEE Vehicular Technology Conference, Spring, Volume: 3, Page(s): 1664-1666 April 22-25, 2003

[172] N. Ammar and Z. Ding, ``On Blind Channel Identifiability Under Space-Time Coded Transmission", Proc. 36th Asilomar Conf., Nov., 2002.

[173] Xiangguo Tang and Zhi Ding, ``A simple iterative bi-directional equalization for EDGE wireless systems", IEEE Globecom, pp. 287-290, Taipei, Nov. 2002.

[174] Xiangguo Tang and Zhi Ding, ``Contradictory block arbitration for bi-directional decision feedback equalizers", IEEE Globecom, pp. 283-286, Taipei, Nov. 2002.

[175] H. Samra and Z. Ding, ``Precoded Integrated Equalization for ARQ Systems", Proc. of the 36th Asilomar Conf. on Signals, Systems, and Computers, Monterey, CA, Nov., 2002.

[176] N. Ammar and Z. Ding, ``Channel Estimation Under Space-Time Block-Coded Transmission", IEEE Sensor Array and Multichannel Signal Processing Workshop, Rosslyn, VA. Aug, 2002, pp. 422-426.

[177] J Liang, Z Ding, ``Higher order statistical approach for channel estimation usingmatrix pencils," IEEE International Conference on Communications (ICC), Volume: 1, page(s): 11-15, 28 April - 2 May 2002, New York.

[178] J. Liang and Z. Ding, ``A Higher Order Matrix Pencil Approach to Blind Channel Estimation," Proc. IEEE Int. Symposium on Circuits and Systems, Scottsdale, AZ, 2002.

[179] T. A. Drumright and Z. Ding, â€œModulation Classification of QAM Signals using Joint Characteristic Function," Proc. IEEE Int. Symposium on Circuits and Systems, Scottsdale, AZ, 2002.

[180] T. A. Drumright and Z. Ding, ``Gibbs Sampling Classification of QAM Signals in Frequency Selective Channels", 36th Asilomar Conf. on Signals, Systems and Computers, Asilomar CA, 2002, Page(s): 833-837.

[181] H. Samra and Z. Ding, ``Iterative Integrated Equalization for ARQ Systems", Int. Symp. on Info. Theory, Lausanne, Switzerland, Jun, 2002.

[182] H. Samra and Z. Ding, ``Integrated iterative equalization for ARQ Systems," IEEE Int. Conf. on Acoustics, Speech, and Signal Processing, Orlando, FL, 2002.

[183] J. Liang, Z. Ding, and S. Lin, ``Joint Equalization with LDPC Decoding under hybrid ARQ Scheme," 35th Asilomar Conference on Signals, Systems and Computers, Pacific Grove, CA, 2001.

[184] X.-G. Tang and Z. Ding, ``Turbo Equalization for EDGE System with DDF-SOVA," 35th Asilomar Conference on Signals, Systems and Computers, Pacific Grove, CA, Nov. 2001.

[185] S. Cui, Z. Luo, and Z. Ding, ``Robust CDMA Signal Detection in the Presence of User and Interference Signature Mismatch," Proc. 3rd IEEE Workshop on Signal Processing Advances in Wireless Communications, pp. 221-224, March 20-23, 2001.

[186] S. Cui, Z. Luo, and Z. Ding, ``Robust Blind Multiuser Detection against CDMA Signature Mismatch," Proc. Int. Conf. on Acoustics, Speech, and Signal Processing, pp. 2297-2300, Salt Lake City, May 2001.

[187] H. Xu, S. Dasgupta, and Z. Ding, ``A Novel Channel Identification Method for Fast Wireless Communication Systems," Pro. 2001 IEEE International Conference on Communications, pp. 2443-2448, 2001.

[188] J. Liang and Z. Ding, ``FIR Multichannel Identification using Weighted Cumulant Matrix," Proc. 34th Asilomar Conference on Signals, Systems and Computers, pp. 1573-1577, 2000.

[189] J. Liang and Z. Ding, ``A cumulant subspace approach to FIR multiuser channel estimation" Proc. 34th Asilomar Conference on Signals, Systems and Computers, pp. 616-620, 2000.

[190] Z. Ding and Li Qiu, ``Properties of matrix polynomials and MIMO channel identifiability from second order statistics", Proceedings of the 39th IEEE Conference on Decision and Control, vol. 5, Page(s): 4302 -4307 vol.5, 2000.

[191] X. Tang and Z. Ding, ``A Differential Correlation Approach to Blind Symbol Estimation," Proc. IEEE Wireless Communications and Networking Conference, Chicago, IL, September 2000.

[192] J. Liang and Z. Ding, ``A cumulant subspace approach to FIR multiuser channel estimation," Proc. 10th IEEE Workshop on Statistical Signal and Array Processing, pp. 616-620, Pocono Manor, PA, August 2000.

[193] E. Bai and Z. Ding, ``Blind decision feedback equalization of time-varying channels with DPSK inputs," Proceedings 2000 IEEE International Symposium on Circuits and Systems, Volume 4, 28-31 May 2000, 96 - 99

[194] E. Bai and Z. Ding, ``Zero-forcing equalizability of FIR and IIR multi-channel systems with and without perfect measurements," Proceedings 2000 IEEE International Symposium on Circuits and Systems, Volume 4, 28-31 May 2000, 699 - 701

[195] Zhu, J.; Cao, X.-R.; Ding, Z., ``An algebraic principle in blind separation of single source signal", Proceedings 2000 IEEE International Symposium on Circuits and Systems, Volume 4, 28-31 May 2000, Page(s):693 - 696.

[196] Xiangyang Zhuang, Zhi Ding, and A. Lee Swindlehurst, ``A Statistical Subspace Method for Blind Channel Identification in OFDM Communication", IEEE Int. Conf. on Acoustics, Speech, and Signal Processing, pp. 2493-2496, Istanbul, Turkey, May 2000.

[197] Jie Zhu, Wee Ser, and Zhi Ding, ``Blind ISI cancellation by anchoring an arbitrary impulse response coefficient of channels", IEEE Int. Conf. on Acoustics, Speech, and Signal Processing, pp. 2465-2468, Istanbul, Turkey, May 2000.

[198] Zhi Ding, S. Dasgupta, and R. Lopez-Valcarce, ``Interference cancellation and blind equalization for linear multi-user systems", IEEE Int. Conf. on Acoustics, Speech, and Signal Processing, pp. 145-148, Istanbul, Turkey, May 2000.

[199] Kennedy, R.A.; Hasnie, S.; Zhi Ding; McGinty, N.C.; ``Decision feedback equalization using fractionally spaced feedback filtering and vector quantization" Proc. 38th IEEE Conference on Decision and Control, . Volume 1, 7-10 Dec. 1999, Page(s):162 - 167.

[200] T. Li and Z. Ding, ``A Reduced-State Viterbi Algorithm for Blind Sequence Estimation of DPSK Sources," Proc. Global Telecommunications Conference (Globecom), pp. 2167-2171, Rio de Janeiro, Brazil, Dec. 1999.

[201] G. Li and Z. Ding, ``Blind Linear Equalization for GSM Signals in a Mobile Environment", Proc. IEEE Wireless Communications and Networking Conference, pp.801-804, New Orleans, LA, September, 1999.

[202] J. Shen and Z. Ding, ``Direct blind MMSE channel equalization based on second order statistics," 1999 IEEE International Conference on Communications, vol.3, pp.1537 -1541, Seattle, WA, June 1999.

[203] G. Li and Z. Ding, ``New Blind/semi-blind Equalization for GSM Systems", 1999 IEEE Workshop on Signal Processing Advances in Wireless Communications, pp.66-69, Annapolis, MD, May 1999.

[204] J. Shen and Z. Ding, ``Blind MMSE CDMA Detection in Multipath Channels", 1999 IEEE Workshop on Signal Processing Advances in Wireless Communications, pp.5-8, Annapolis, MD, May 1999.

[205] Z. Ding, ``Cumulant Matrix Subspace Algorithms for Blind Single FIR Channel Identification", 1999 IEEE Workshop on Higher Order Statistics, pp.85-88, June, Caesarea, Israel, 1999.

[206] Z. Ding, ``A Cumulant Matrix Subspace Algorithm for Blind Single FIR Channel Identification", SPIE Conference on Digital Wireless Communications, SPIE vol.3708, pp.193-201, April, Orlando, FL, 1999.

[207] J.E. Mooney, Z. Ding, and L.S. Riggs, "Performance Analysis of an Automated E-pulse Scheme in White Gaussian Noise," IEEE International Antennas and Propagation Symposium and URSI/USNC Radio Science Meeting, April, Orlando, FL, 1999.

[208] Junqiang Shen and Zhi Ding, ``Zero-Forcing Blind Equalization Based on Channel Subspace Estimates for Multiuser Systems", Proc. Int. Conf. on Acoustics, Speech, and Signal Processing}, Phoenix, AZ, March 1999.

[209] Z. Ding and G. Li, ``Feasibility of linear GSM blind channel equalization," Proc. Int. Telecommunications Symp., vol.1, pp.~359-364, Sao Paulo, Brazil, 1998.

[210] C. T. Ma, Z. Ding, and S. F. Yau, ``A Two-stage Algorithm for MIMO Blind Deconvolution of Colored Input Signals", Proceedings 9th IEEE SP Workshop on Statistical Signal and Array Processing, pp.~384-387, 1998.

[211] Chunqi Chang, Zhi Ding, Mark S.-F. Yau, and Francis H. Y. Chan, ``A Matrix-Pencil Approach to Blind Separation of Non-White Signals in White Noise", Proc. 1998 IEEE International Conf. on Acoustics, Speech, and Signal Processing, pp.2485-2488, Seattle, May 12, 1998.

[212] Zhi Ding, Iain Collings, Ruey-wen Liu, ``A New Blind Zeroforcing Equalizer for Multichannel Systems", Proc. 1998 IEEE International Conf. on Acoustics, Speech, and Signal Processing, pp.3177-3180, Seattle, May 12, 1998.

[213] Ge Li and Zhi Ding, ``Semi-Blind Channel Identification Used in GSM System," Proc. 1998 IEEE International Conf. on Acoustics, Speech, and Signal Processing, pp.3389-3392, Seattle, May 12, 1998.

[214] Zhi Ding and Ge Li, ``Single Channel Linear Blind Equalization for GSM Cellular Systems", Proc. 1998 IEEE International Conf. on Communications, Atlanta, June, 1998. pp. 355-359

[215] C. Chang, Z. Ding, S. F. Yau, and F. H. Y. Chan ``A Matrix-Pencil Approach to Blind Separation of Non-White Sources," Proc. International Symposium on Multimedia Information Processing, pp. 280-285, Taipei, Taiwan, December 1997.

[216] Jie Zhu, Xiren Cao, Zhi Ding, and Junqiang Shen, ``A Blind Intersymbol Interference Cancellation Method for Multi-user Systems with Channel Diversity", Proc. 1997 Asilomar Conference on Signals, Systems, and Computers, pp.565-569, Pacific Grove, 1997.

[217] Zhi Ding and Ge Li, ``New Methods of Blind Channel Equalization for GSM Systems", Proc. 1997 Asilomar Conference on Signals, Systems, and Computers, Pacific Grove, 1997.

[218] Zhi Ding, ``Blind Wiener Filter Estimation for Multi-Channel Systems Base on Partial Information," Proc. 1997 IEEE International Conf. on Acoustics, Speech, and Signal Processing, pp.3609-3612, April 1997.

[219] Tuan Nguyen and Zhi Ding, ``CMA Beamforming for Multipath Correlated Sources", Proc. 1997 IEEE International Conf. on Acoustics, Speech and Signal Processing, pp.2521-2524, April 1997.

[220] Rodney A. Kennedy, Deva K. Borah, and Zhi Ding, ``Discretization Issues for the Design of Optimal Blind Algorithms", Proc. 1997 IEEE International Conf. on Acoustics, Speech, and Signal Processing, pp.51-54, April 1997.

[221] Junqiang Shen and Zhi Ding, ``Blind Adaptive Multiuser CDMA Detection Based on a Linear Projection Constraint", Proc 1st IEEE Workshop on Signal Processing Advances in Wireless Communications, pp.~261-264, Paris, France, April 1997.

[222] Kennedy, R.A.; Zhi Ding, ``Design and optimization of nonlinear mapping in decision feedback equalization," Proceedings of the 35th IEEE Decision and Control, Volume 2, Page(s):1888 - 1889, 11-13 Dec. 1996

[223] Z. Ding, ``An Outer-Product Decomposition Algorithm For Multichannel Blind Identification", Proc. 8th IEEE Workshop on Stat. Signal and Array Processing, pp.~132-135, Corfu, Greece, June 1996.

[224] Zhi Ding, ``On Convergence Analysis of Fractionally Spaced Adaptive Blind Equalizers", Int. Conf. on Acoustics, Speech, and Signal Processing, May 1996.

[225] J.E. Mooney, Z. Ding, and L.S. Riggs, "Robust Target Identification Using a Generalized Likelihood Ratio Test," Proc. 3rd International Conference on Ultra-Wideband, Short-Pulse Electromagnetics, pp.343-350, Albuquerque, NM, 1996.

[226] D. B. Ward, Z. Ding, and R. A. Kennedy ``Broadband DOA Estimation using Frequency-invariant Beam-space Processing", Int. Conf. on Acoustics, Speech, and Signal Processing}, pp.2892-2895, May 1996.

[227] R.A. Kennedy and Z. Ding, ``Quantizer Design and Optimization in Decision Feedback Equalization", Proc. 1996 Int. Symp. on Signal Proc. Applications, pp.614-617, August, Gold Coast Australia.

[228] Zhi Ding, ``A Blind Channel Identification Algorithm Based on Matrix Outer-Product", 1996 International Communications Conference, Dallas, TX. pp. 852-856.

[229] Casas, R.A.; Zhi Ding; Kennedy, R.A.; Johnson, C.R., Jr.; Malamut, R.; ``Blind adaptation of decision feedback equalizers based on the constant modulus algorithm", Proc. 29th Asilomar Conference on Signals, Systems and Computers, Volume 1, 30 Oct.-2 Nov. 1995 Page(s):698 - 702

[230] Zhi Ding, ``Myopic Channel Identification: Identifying unknown Channels based on known pulse shapes", 1995 IEEE Global Telecommunications Conference, vol.1, pp.670-674, Nov. 1995.

[231] Paul Burns* and Zhi Ding, ``Robustification of Cyclostationary Array Processing Techniques", Proc. Int. Conf. on Acoustics, Speech, and Signal Processing, pp. 1589-1592, Detroit, May 1995.

[232] Zhi Ding and Zhen Mao, ``Knowledge Based Identification of Fractionally Sampled Channels" Proc. Int. Conf. on Acoustics, Speech, and Signal Processing, pp. 1996-1999, Detroit, May 1995.

[233] Zhi Ding and Rodney A. Kennedy, ``An Algebraic Self-Training Algorithm for Multi-Channel Systems Identification", Equalizers", Proc. 33rd IEEE Conf. on Decision and Control Lake Buena Vista, FL, Dec. 1994.

[234] Y. Li and Zhi Ding, ``Global Convergence of Fractionally Spaced Godard Adaptive Equalizers", Proc. 28th Asilomar Conf. on Signals, Systems and Computers, pp.617-621, Nov. 1994.

[235] Zhi Ding and Rodney A. Kennedy, ``Algebraic Self-Training Algorithms for Multi-Channel System Identification and Equalization", Proc. 28th Asilomar Conf. on Signals, Systems and Computers, pp. 1453-1457, Pacific Grove, CA, Nov. 1994.

[236] Y. Li and Zhi Ding, ``Global Convergence of Adaptive Blind Equalizers", Proc. 4th Annual IEEE Dual-Use Technologies and Applications Conference, vol.II, pp. 402-411, Utica, NY, May 1994.

[237] Y. Li and Z. Ding, ``New Results on the Blind Identification of FIR Channels Based on Second Order Statistics", Proc. 1993 MILCOM, pp. 644-647, Boston, Oct. 1993.

[238] Y. Li and Z. Ding, ``A New Non-Parametric Cepstral Method for Blind Channel Identification from Cyclostationary Statistics", Proc. 1993 MILCOM, pp. 648-652, Boston, Oct. 1993.

[239] Y. Li and Z. Ding ``Blind Channel Identification Based on Second order Cyclostationary Statistics", Proc. 1993 IEEE ICASSP, pp. IV:81-84, Minneapolis, April 1993.

[240] J. Y. Hung and Z. Ding, ``Minimization of Torque Ripple in Permanent Magnet Motors," 1992 IEEE Industrial Electronics Conference, San Diego, CA.

[241] Z. Ding and Y. Li, ``Channel Identification Using Second Order Cyclic Statistics," Proc. 26th Asilomar Conf. on Signals, Systems, and Computers, Pacific Grove, CA, November 1992.

[242] Z. Ding, ``On Channel Identifiability Based on Second Order Cyclic Spectra," Proc. IEEE 1992 Milcom, San Diego, October 1992.

[243] K. Yamazaki, R. A. Kennedy, and Z. Ding, ``Candidate Admissible Blind Equalization Algorithms for QAM Communication Systems," Proc. 1992 IEEE Int. Conf. on Communications, pp. 1518-1522, June 1992.

[244] K. Yamazaki, R. A. Kennedy, and Z. Ding, ``Globally Convergent Blind Deconvolution Algorithms for Complex Data System," Proc. 1992 IEEE ICASSP, San Fransisco, CA, April 1992.

[245] Z. Ding and R. A. Kennedy, ``A New Adaptive Algorithm for Joint Blind Equalization and Carrier Recovery," Proc. 25th Asilomar Conf. on Signals, Systems, and Computers, pp. 699-703, Pacific Grove, CA, November 1991 (Invited).

[246] Z. Ding and C. R. Johnson, Jr., ``Existing Gap Between Theory and Application of Blind Equalization," Adaptive Signal Processing, Simon Haykin, Editor, Proc. SPIE 1565, pp. 154-165, 1991 (Invited).

[247] Z. Ding, ``A New Method for Automatic Beamforming," Proc. 25th Asilomar Conf. on Signals, Systems, and Computers, pp. 689-693, Pacific Grove, CA, November 1991.

[248] Z. Ding, C. R. Johnson, Jr., and R. A. Kennedy, ``Local Convergence of `Globally Convergent' Blind Adaptive Equalization Algorithms," Proc. 1991 IEEE ICASSP, pp. 1529-1532, Toronto, Canada, May 1991.

[249] Z. Ding,``Joint Blind Equalization and Carrier Recovery of QAM Systems," Proc. 25th Conf. on Info. Sciences and Systems, Baltimore, MD, March 1991.

[250] R. A. Kennedy, B.D.O. Anderson, Z. Ding, and C. R. Johnson, Jr., ``Local stable minima of the Sato recursive identification scheme", Proceedings of the 29th IEEE Conference on Decision and Control, vol.6, Page(s):3194 - 3199, 5-7 Dec. 1990.

[251] Z. Ding, C. R. Johnson, Jr., and R. A. Kennedy, `` Nonglobal convergence of blind recursive identifiers based on gradient descent of continuous cost functions", Proceedings of the 29th IEEE Conference on Decision and Control, vol.1, Page(s):225 - 230, 5-7 Dec. 1990.

[252] Z. Ding, C. R. Johnson, Jr., and R. A. Kennedy, ``On the admissibility of blind adaptive equalizers", Proc. Int. Conf. on Acoustics, Speech, and Signal Processing, vol.3, Page(s):1707 - 1710, 3-6 April 1990.

[253] Z. Ding, C. R. Johnson, R. A. Kennedy and B. D. O. Anderson, ``On the Ill-Convergence of Godard Blind Equalizers in Data Communication Systems", In Proceedings of Conf. Information Science and Systems, vol. 89, pp. 538-543, Baltimore, MD, 1989.

Professional Services and Achievements

- Steering Committee Chairman, *IEEE Transactions on Wireless Communications,* 1.2008-1-2010
- Canadian National Science and Engineering Research Council Panelist, 2009-2012
- Fellow of IEEE
- Steering Committee Member, *IEEE Transactions on Wireless Communications,* 1.2006-1-2008
- General Chair, IEEE 2016 International Conference on Acoustics, Speech, and Signal Processing, Shanghai, China.
- Technical Program Chair, *IEEE 2006 Globecom*, San Francisco, CA.
- Editorial Board Member, *IEEE Signal Processing Magazine*, 1/2003-1/2007.
- Associate Editor, *IEEE Signal Processing Letters*, 1.2002-1.2005.
- Associate Editor, IEEE Transactions on Signal Processing, 1.2001-1.2004.
- Editor, Special Issue on Multiuser Detection and Blind Estimation, *EURASIP Journal on Applied Signal Processing*, Dec. 2002.
- Member, IEEE Statistical Signal and Array Processing Technical Committee, 1993-1998.
- Member, IEEE Signal Processing for Communications Technical Committee, 1998-2004.
- Associate Editor, IEEE Transactions on Signal Processing, 1994-1997.
- Technical Program Committee Member, 3rd IEEE Workshop on Signal Processing Advances in Wireless Communications, Taiwan, March 2001.
- Organization Committee Member, 1st IEEE Workshop on Signal Processing Advances in Wireless Communications, Paris, France, April 1997.
- Review Panelist, National Science Foundation, 1997, 2003, 2004, 2005, 2007, 2008, 2010, 2014, 2015, 2016.