

## Publication List of Shih-Chun Lin

---

JOURNAL  
PUBLICATIONS

[J\*2] T.-Y. Liu, P.-H. Lin, S.-C. Lin, Y.-W. Peter Hong and E. A. Jorswieck “To Avoid or Not To Avoid CSI Leakage in Physical Layer Secret Communication Systems”, *IEEE Communications Magazine*, vol. 53, no. 12, pp. 19-25, Dec. 2015

[J\*1] S.-C. Lin and C.-L. Lin, “On Secrecy Capacity of Fast Fading MIMOME Wiretap Channels with Statistical CSIT”, *IEEE Transactions on Wireless Communications*, vol. 13. No. 6, pp.3293-3306, Jun 2014 (Best paper award for young authors from the IEEE IT/COM Society Taipei/Tainan Chapter, 2015)

[J18] T.-Y. Liu, S.-C. Lin, Y.-W. Peter Hong, “On the Role of Artificial Noise in Training and Data Transmission for Secret Communications”, *IEEE Transactions on Information Forensics and Security*, vol. 12, no. 3, pp. 516 - 531, Mar. 2017

[J17] H.-S. Lang, S.-C. Lin, and W.-H. Fang, “Subcarrier Pairing and Power Allocation with Interference Management in Cognitive Relay Networks Based on Genetic Algorithms”, *IEEE Transactions on Vehicular Technology*, vol. 65, No. 9, pp. 7051 - 7063, Sept. 2016

[J16] S. F. Xu, T.-H. Chang, S.-C. Lin, C. Shen and G. Zhu “Energy-Efficient Packet Scheduling with Finite Blocklength Codes: Convexity Analysis and Efficient Algorithms”, *IEEE Transactions on Wireless Communications*, vol. 15, no. 8, pp. 5527-5540, Aug. 2016

[J15] Y.-P. Wei, S.-C. Lin, S.-J. Lin, H.-J. Su and H. Vincent Poor, “Residual-quantization Based Code Design for Compressing Noisy Sources with Arbitrary Decoder Side Information”, *IEEE Transactions on Communications*, vol. 64, no. 4, pp. 1711-1725, April 2016

[J14] T.-Y. Liu, P. Mukherjee, S. Ulukus, S.-C. Lin, and Y.-W. Peter Hong “Secure Degrees of Freedom of MIMO Rayleigh Block Fading Wiretap Channels with No CSI Anywhere” , *IEEE Transactions on Wireless Communications*, vol. 14, no. 5, pp. 2655-2669, May 2015

[J13] C.-P. Lee, S.-C. Lin, H.-J. Su and H. Vincent Poor “Multi-user lattice coding for the multiple-access relay channel”, *IEEE Transactions on Wireless Communications*, vol. 13. no. 7, pp.3539-3555, July 2014

[J12] P.-H. Lin, S.-H. Lai, S.-C. Lin and H.-J. Su, “On Secrecy Rate of the Generalized Artificial-Noise Assisted Secure Beamforming for Wiretap Channels,” *IEEE Journal on Selected Areas in Communications*, vol. 31. No. 9, pp. 1728-1740, Sep 2013

[J11] M.-H. Chen, S.-C. Lin, Y.-W. Peter Hong and X. Zhou “On Cooperative and Malicious Behaviors in Multi-Relay Fading Channels”, *IEEE Transactions on Information Forensics and Security*, vol. 8. No. 7, pp, 1126 - 1139, July 2013

[J10] S.-C. Lin and P.-H. Lin “On Secrecy Capacity of Fast Fading Multiple Input Wiretap Channels with Statistical CSIT”, *IEEE Transactions on Information Forensics and Security*, vol. 8. No. 2, pp. 414-419, Feb 2013

[J9] P.-H. Lin, S.-C. Lin, H.-J. Su, and Y.-W. Peter Hong “Improved Transmission Strategies for Cognitive Radio Under the Coexistence Constraint”, *IEEE Transactions on Wireless Communications*, vol. 11, no. 11, pp. 4058-4073, Nov. 2012 (part of the thesis won Best PHD Thesis Award, Graduate Institute of Communication Engineering, National Taiwan University, 2011)

[J8] S.-C. Lin, P.-H. Lin, C.-P. Lee and H.-J. Su “Filter and nested-lattice code design for fading

MIMO channels with side-information”, IEEE Transactions on Communications, vol. 59. No. 6, pp. 1489 - 1494, June 2011

[J7] Y.-H. Yang, S.-C. Lin and H.-J. Su, “Multiuser MIMO Downlink Beamforming Design Based on Group Maximum SINR Filtering”, IEEE Transactions on Signal Processing, vol. 59, no. 4, pp. 1746-1758 Apr. 2011

[J6] S.-C. Lin, T.-H. Chang, Y.-L. Liang, Y.-W. Peter Hong, and C.-Y. Chi, “On the Impact of Quantized Channel Feedback in Guaranteeing Secrecy with Artificial Noise - the Noise Leakage Problem”, IEEE Transactions on Wireless Communications, vol. 10, no. 3, pp. 901-915, March 2011

[J5] P.-H. Lin, S.-C. Lin, C.-P. Lee and H.-J. Su, “Cognitive Radio with Partial Channel State Information at the Transmitter”, IEEE Transactions on Wireless Communications, vol. 9, no. 11, pp. 3402-3413, Nov. 2010 (part of the thesis won Best PHD Thesis Award, Graduate Institute of Communication Engineering, National Taiwan University, 2011)

[J4] S.-C. Lin, M. Shahmohammadi and H. El Gamal, “Fingerprinting with Minimum Distance Decoding”, IEEE Transactions on Information Forensics and Security, vol.4, no.1, pp.59-69, March 2009

[J3] S.-C. Lin and H.-J. Su, “Practical vector dirty paper coding for MIMO Gaussian broadcast channels,” IEEE Journal on Selected Areas in Communications, vol. 25, no. 7, pp. 1345-1357, Sep. 2007

[J2] P.-H. Lin, S.-C. Lin, H.-T. Liu, and H.-J. Su, “Peak to Average Power Ratio Reduction for Multicarrier Systems Using Dirty Paper Coding,” Journal of Communications, Vol. 2, Issue 3, pp. 9-16, May 2007 (Invited)

[J1] M.-L. Liou, P.-H. Lin, C.-J. Jan, S.-C. Lin, and T.-D. Chiueh, “Design of an OFDM Baseband Receiver with Space Diversity,” IEE Proc. on Communications, vol. 153, no. 6, pp. 894-900, Dec.2006

CONFERENCE  
PUBLICATIONS

[C\*8] T.-H. Chang, Y.-F. Liu, and S.-C. Lin “Max-Min-Fairness Linear Transceiver Design for Full-Duplex Multiuser Systems”, Invited for special session “Full-Duplex Communications” in IEEE International Workshop on Signal Processing Advances in Wireless Communications (SPAWC), July, 2017

[C\*7] T.-Y. Liu, S.-C. Lin, and Y.-W. Peter Hong, “Multicasting with untrusted relays: a noncoherent secure network coding approach”, Invited for special session “Physical Layer Security with an Uncertain Physical Layer” in IEEE International Workshop on Information Forensics and Security (WIFS), Dec 2015

[C\*6] C.-G. Hou, S.-C. Lin, S.-T. Su, and W.-H. Chung “Fault tolerant quickest detection for power quality events in smart grid AMI networks”, Invited for special session “Advanced Techniques in Industry Applications” in International Symposium on Intelligent Signal Processing and Communication Systems (ISPACS), Nov 2015

[C\*5] Y.-C. Shao, M.-H. Chen, S.-C. Lin, and W. Sabrina Lin, “On Two-Way Relay Channel with an Active Malicious Relay,” Invited paper for International Conference on Wireless Communications and Signal Processing (WCSP), Oct 2015

[C\*4] P.-H. Lin, S.-C. Lin, S.-H. Lai and H.-J. Su “On Secure Beamforming for Wiretap Channels with Partial Channel State Information at the Transmitter” Invited for special session of APSIPA

Annual Summit and Conference 2012

[C\*3] T.-Y. Liu, T.H.-Chang, S.-C. Lin and Y.-W. Peter Hong, "On the tradeoff between training and data transmissions for secrecy beamforming", National Symposium on Telecommunications, Taiwan, Nov, 2011 (won Best Student Paper Award)

[C\*2] S.-J. Lin, S.-C. Lin, K.-S. Chen and H.-J. Su "Coding for noisy quadratic-Gaussian Wyner-Ziv problem : A successive quantization approach", IEEE Information Theory Workshop on Networking and Information Theory (ITW), Jun. 2009 (part of the thesis won Best Master Thesis Award, Graduate Institute of Communication Engineering, National Taiwan University, 2008)

[C\*1] S.-C. Lin and H.-J. Su, "A practical vector dirty paper coding scheme for MIMO Gaussian broadcast channels," International symposium on information theory and its applications (ISITA), Seoul, South Korea, Oct. 29-Nov. 1, 2006. (Won Travel Support)

[C38] I.-H. Wang, S.-C. Lin, and Y.-C. Huang "Role of Feedback in Modulo-Sum Computation over Erasure Multiple-Access Channels", IEEE International Symposium on Information Theory (ISIT), June, 2017

[C37] C.-H. Lee, T.-H. Chang, S.-C. Lin "Transmit-Receive Beamforming Optimization for Full-Duplex Cloud Radio Access Networks", IEEE Global Communications Conference (GLOBECOM), Dec. 2016

[C36] M.-Y. Hsieh, C.-C. Liu, S.-C. Lin, W.-H. Chung, "Code-based quickest detection for power quality events in smart grid", International Conference on Electrical Engineering and Computer Science, Oct, 2016

[C35] S.-C. Lin and I.-H. Wang "Single-User CSIT Can be Quite Useful for State-Dependent Broadcast Channels," IEEE International Symposium on Information Theory (ISIT), July, 2016

[C34] T.-I. Lai, W.-H. Fang and S.-C. Lin, "Efficient Subcarrier Pairing and Power Allocation in Multi-Relay Cognitive Networks", International Conference on Intelligent Green Building and Smart Grid, June, 2016

[C33] S. F. Xu, T.-H. Chang, S.-C. Lin, C. Shen and G. Zhu "On the Convexity of Energy-Efficient Packet Scheduling Problem with Finite Blocklength Codes", IEEE Global Communications Conference (GLOBECOM), Dec. 2015

[C32] S.-T. Su, C.-G. Hou, S.-C. Lin, C.-N. Lu, W.-H. Chung "Quickest Change Detection via Fault Tolerant Decision Fusion for Multiple Power Quality Events", IEEE Wireless and Optical Communication (WOCC), Oct. 2015

[C31] S.-C. Lin and I.-H. Wang "On Two-Pair Two-Way Relay Channel with an Intermittently Available Relay", IEEE International Symposium on Information Theory (ISIT) June, 2015

[C30] T.-Y. Tseng, C.-P. Lee, S.-C. Lin and H.-J. Su, "Non-orthogonal Compute-and-forward with Joint Lattice Decoding for the Multiple-access Relay Channel," IEEE Global Communications Conference (GLOBECOM) Workshop, Dec. 2014

[C29] T.-Y. Liu, P. Mukherjee, S. Ulukus, S.-C. Lin, and Y.-W. Peter Hong "Secure DoF of MIMO Rayleigh Block Fading Wiretap Channels with No CSI Anywhere" , ICC 2014

[C28] M.-H. Chen, C.-M. Kuo, P.-H. Lin, S.-C. Lin and H.-J. Su "Low-Complexity Remote Compressive Sensing for Machine-to-Machine Networks with Stochastic Sources" International Conference

on Intelligent Green Building and Smart Grid, 2014

[C27] H.-S. Lang, F.-T. Yeh, S.-C. Lin and W.-H. Fang "Joint Subcarrier Pairings and Power Allocations with Interference Management in Cognitive Relay Networks based on Genetic Algorithms" International Conference on Intelligent Green Building and Smart Grid, 2014

[C26] S.-C. Lin "On Ergodic Secrecy Capacity of Fast Fading MIMOME Wiretap Channel With Statistical CSIT" APSIPA Annual Summit and Conference 2013

[C25] W.-H. Fang, H.-S. Lang and S.-C. Lin "Power Allocation and Subcarrier Pairing in OFDM-Based Decode-and-Forward Relay Networks Based on a Genetic Approach" International Symposium on Intelligent Signal Processing and Communication Systems (ISPACS) 2013

[C24] X. Zhou, M. Qiu, S.-C. Lin, Y.-W. Peter Hong, "On the Jamming Power Allocation and Signal Design in DF Relay Networks" Asilomar Conference on Signals, Systems and Computers, 2013

[C23] C.-P. Lee, S.-C. Lin, H.-J. Su and H. Vincent Poor "Relay-mapper aided multi-user lattice coding for the multiple-access relay channel", Conference on Information Sciences and Systems (CISS), Mar, 2013

[C22] Y.-P. Wei, S.-C. Lin Y.-H. Lin and H.-J. Su "Graph-based Code Design for Quadratic-Gaussian Wyner-Ziv Problem with Arbitrary Side Information", IEEE International Symposium on Information Theory (ISIT) Jul, 2012

[C21] T.-Y. Liu, S.-C. Lin, T.-H. Chang, Y.-W. Peter Hong "How Much Training is Enough for Secrecy Beamforming with Artificial Noise", IEEE International Conference on Communications (ICC), June, 2012

[C20] S.-H. Lai, P.-H. Lin, S.-C. Lin, H.-J. Su, "On Optimal Artificial-Noise Assisted Secure Beamforming for the Multiple-Input Multiple-Output Fading Eavesdropper Channel", IEEE Wireless Communications and Networking Conference, Apr., 2012

[C19] M.-H. Chen, S.-C. Lin and Y.-W. Peter Hong, "A Game Theoretic Approach for the Cooperative Network with the Presence of Malicious Relays", IEEE Global Communications Conference, Dec., 2011

[C18] S.-H. Lai, P.-H. Lin, S.-C. Lin, H.-J. Su, "On Optimal Artificial-Noise Assisted Secure Beamforming for the Fading Eavesdropper Channel", IEEE International Symposium on Personal, Indoor and Mobile Radio Communications, Sep, 2011, pp. 1167-1171

[C17] P.-H. Lin, S.-C. Lin, H.-J. Su and Y.-W. Peter Hong, "Cognitive Radio with Unidirectional Transmitter and Receiver Cooperations", Conference on Information Sciences and Systems (CISS), Mar. 2010

[C16] S.-C. Lin, T.-H. Chang, Y.-W. Peter Hong, and C.-Y. Chi, "On the Impact of Quantized Channel Direction Feedback in Multiple-Antenna Wiretap Channels", in Proc. IEEE ICC, Cape Town, South Africa, May 23-27, 2010.

[C15] Y.-H. Yang, S.-C. Lin and H.-J. Su "Multiuser MIMO Downlink Beamforming Based on Group Maximum SINR Filtering with Per Stream Power Allocation", IEEE International Conference on Communications (ICC), Jun. 2009

[C14] P.-H. Lin, S.-C. Lin and H.-J. Su "Design of the Cognitive Radio with Partial Channel State

- Information at the Transmitter”, Conference on Information Sciences and Systems (CISS), Mar. 2009
- [C13] Y.-H. Yang, S.-C. Lin and H.-J. Su, “Multiuser MIMO Downlink Beamforming Based on Group Maximum SINR Filtering”, IEEE International Conference on Communications (ICC), Beijing, China, May 2008
- [C12] P.-H. Lin, S.-C. Lin and H.-J. Su, “Cognitive Radio with Partial Channel State Information at the Transmitter”, IEEE International Conference on Communications (ICC), Beijing, China, May 2008
- [C11] P.-H. Lin, C.-P. Lee, S.-C. Lin and H.-J. Su “Cognitive Radio in Slow Fading Channels with Partial Channel State Information at the Transmitter”, Annual Conference on Information Sciences and Systems (CISS), Princeton, USA, Mar. 2008
- [C10] M. Shahmohammadi, S.-C. Lin and H. El Gamal “Fingerprinting with Minimum Distance Decoding”, Forty-fifth annual Allerton conference on communication, control, and computing September 26 - 28, 2007
- [C9] S.-C. Lin, P.-H. Lin, and H.-J. Su, “Lattice coding for the vector fading paper problem,” IEEE Information Theory Workshop (ITW), Lake Tahoe, USA, Sep. 2007
- [C8] S.-C. Lin and H.-J. Su, “Vector Wyner-Ziv Coding for Vector Gaussian CEO Problem,” Annual Conference on Information Sciences and Systems (CISS), Baltimore, USA, Mar. 2007
- [C7] S.-C. Lin and H.-J. Su, “Lattice-based vector dirty paper coding for MIMO Gaussian broadcast channels,” the 5th Asia-Europe Workshop on Concepts in Information Theory, Jeju, South Korea, October 25-27, 2006
- [C6] P.-H. Lin, S.-C. Lin, and H.-J. Su, “Extending the Linear Range of Power Amplifiers with Dirty Paper Coding,” the 5th Asia-Europe Workshop on Concepts in Information Theory, Jeju, South Korea, October 25-27, 2006
- [C5] S.-C. Lin, C.-C. Yu, and H.-J. Su, “Adaptive maximum signal-to-noise ratio array processing for space-time coded systems,” in 15th IST Mobile and Wireless Communication Summit, Jun. 2006.
- [C4] P.-H. Lin, S.-C. Lin, H.-T. Liu, and H.-J. Su, “Peak to average power ratio reduction for multicarrier systems using dirty paper coding,” in IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP), May. 2006, pp. IV-297-300.
- [C3] S.-C. Lin and H.-J. Su, “Vector superposition dirty paper coding for MIMO Gaussian broadcast channels,” in 39th Annual Conference on Information Sciences and Systems (CISS), Baltimore, USA, March 16-18 2005.
- [C2] C.-H. Yang, Y.-H. Lin, S.-C. Lin, and T.-D. Chiueh, “Design of a low-complexity receiver for impulse-radio ultra-wideband communication systems,” in Proceedings of the 2004 International Symposium on Circuits and Systems, (ISCAS), May. 2004, pp. IV-125-8.
- [C1] S.-C. Lin and T.-D. Chiueh, “Performance analysis of impulse radio under timing jitter using M-ary bipolar pulse waveform and position modulation,” in IEEE Conference on Ultra Wideband Systems and Technologies, Nov. 2003, pp. 121-125.