YOUNG-HAN KIM

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EDUCATION

1999–2006   **Stanford University**, Stanford, California
Ph.D. in Electrical Engineering, June 2006
(Dissertation: Gaussian feedback capacity; Advisor: Thomas M. Cover)

M.S. in Statistics, June 2006
M.S. in Electrical Engineering, June 2001

1992–96   **Seoul National University**, Seoul, Korea
B.S. in Electrical Engineering, February 1996

EMPLOYMENT

Department of Electrical and Computer Engineering, University of California, San Diego

2017–	Professor
2012–17	Associate Professor (tenure)
2006–12	Assistant Professor

Tong Yang Systems Corporation, Seoul, Korea

1996–99	Member of Technical Staff
	(Major project: Seoul Incheon International Airport)

HONORS

2015	IEEE James L. Massey Research & Teaching Award for Young Scholars
2015	IEEE Fellow
2012–13	IEEE Information Theory Society Distinguished Lecturer
2012	IEEE Information Theory Paper Award
2009	US–Israel Binational Science Foundation Bergmann Memorial Award
2008	NSF Faculty Early Career Development (CAREER) Award
1994	General Electric Foundation Scholarship

PROFESSIONAL ACTIVITIES

2011–18	Technical Program Committee, IEEE International Symposium on Information Theory
2012–17	Faculty Advisory Committee, UCSD Inclusion Diversity Excellence & Advancement (IDEA) Student Center
2010,15,16	Technical Program Committee, IEEE Information Theory Workshop

2007–17	Organizing Committee, UCSD Information Theory and Applications Workshop
2013–14	Awards Committee, IEEE Information Theory Society
2012–14	Associate Editor for Shannon Theory, IEEE Transactions on Information Theory
2013	Visiting Associate Professor, Seoul National University
2012–13	UCSD ECE Department Diversity Coordinator
2009	Organizing Committee, IEEE International Symposium on Information Theory
2006–07	Visiting Assistant Professor, Stanford University

TEACHING ACTIVITIES

2017	Tutorial on Index Coding (1/2 day, Australian School of Information Theory)
2015–17	UCSD ECE 250 Random Processes (graduate, 3 quarters)
2012–17	UCSD ECE 154C Communication Systems (senior, 4 quarters)
2011–17	UCSD ECE 287 Universal Information Processing (graduate, 4 quarters)
2007–17	UCSD ECE 255C Network Information Theory (graduate, 9 quarters)
2016	Tutorial on Information Theory (1 day, Korean School of Information Theory)
2014–15	Tutorial on Relay Networks (1/2 day, Australian & European Schools of Information Theory, 2 times)
2008–15	Tutorial on Network Information Theory (1/2 to 5 days, various venues, 9 times)
2007–14	UCSD ECE 153 Probability and Random Processes (junior/senior, 7 quarters)
2013	Tutorial on Universal Information Processing (1/2 day, Korean School of Pattern Recognition and Machine Learning)
2011	UCSD ECE 87 Puzzles, Information, and Codes (freshman seminar)
2008–10	UCSD ECE 45 Circuits and Systems (sophomore, 2 quarters)

FUNDED PROJECTS

2016–18	Short-block Communication for the Internet of Things (InterDigital)
2015–18	A Time-Frequency Sequenced Near-Zero-Power Wake-Up Receiver (DARPA)
2016–17	Massive MIMO Systems (UCSD Center for Wireless Communications)
2016–17	Fundamental Limits and Optimal Coding for MIMO Interference Channels (Korea Electronics and Telecommunications Research Institute)
2016–17	Recommender System Based on Deep Learning and Information Theory (NAVER Labs)
2015–16	A Divide-and-Conquer Approach to Index Coding for 5G Core Networking (Korea Electronics and Telecommunications Research Institute)
2014–16	Interference Management for 5G Cellular Networks via Sliding-Window Superposition Coding (Samsung Electronics)
2013–16	New Directions in Network Information Theory (NSF)
2013–15	Beyond 4G Wireless Networks (UCSD Center for Wireless Communications)
2013–14	Practical Coding Techniques for Network Communication Systems (Qualcomm)

2011–14	A New Approach to Joint Source–Channel Coding (NSF)
2012–13	Practical Concatenated Polar Coding (Samsung Electronics)
2011–13	Device-to-Device and Relay Enhancement of Cellular Architecture (UCSD Center for Wireless Communications / UC Discovery)
2011–13	A Multi-User Communication and Information Theoretic Approach to the Sparse Signal Recovery Problem (NSF)
2011–13	Simultaneous Interference Decoding for Next-Generation Cellular Networks (Korea Electronics and Telecommunications Research Institute)
2008–13	CAREER: Network Information Theory: Coding for Communication, Control, and Computing (NSF)
2011	Next-Generation Wireless Networks (UCSD Center for Wireless Communications)
2008–10	The Role of Directed Information in Causal Inference (US–Israel BSF)
2007–10	The Role of Feedback in Two-Way Communication Networks (NSF)

BOOKS

[B1] Abbas El Gamal and Young-Han Kim, **Network Information Theory,** Cambridge University Press, Cambridge, 2011.

JOURNAL PUBLICATIONS

[J1] Arak Sutivong, Mung Chiang, Thomas M. Cover, and Young-Han Kim, **"Channel capacity and state estimation for state-dependent Gaussian channels,"** *IEEE Trans. Inf. Theory,* vol. 51, no. 4, pp. 1486–1495, April 2005.

[J2] Daniel Hösli, Young-Han Kim, and Amos Lapidoth, **"Monotonicity results for coherent MIMO Rician channels,"** *IEEE Trans. Inf. Theory,* vol. 51, no. 12, pp. 4334–4339, December 2005.

[J3] Young-Han Kim, **"Feedback capacity of the first-order moving average Gaussian channel,"** *IEEE Trans. Inf. Theory,* vol. 52, no. 7, pp. 3063–3079, July 2006.

[J4] Young-Han Kim, **"A counterexample to Cover's $2P$ conjecture on Gaussian feedback capacity,"** *IEEE Trans. Inf. Theory,* vol. 52, no. 8, pp. 3792–3793, August 2006.

[J5] Young-Han Kim, **"Capacity of a class of deterministic relay channels,"** *IEEE Trans. Inf. Theory,* vol. 54, no. 3, pp. 1328–1329, March 2008.

[J6] Young-Han Kim, **"A coding theorem for a class of stationary channels with feedback,"** *IEEE Trans. Inf. Theory,* vol. 54, no. 4, pp. 1488–1499, April 2008.

[J7] Young-Han Kim, Arak Sutivong, and Thomas M. Cover, **"State amplification,"** *IEEE Trans. Inf. Theory,* vol. 54, no. 5, pp. 1850–1859, May 2008.

[J8] Ehsan Ardestanizadeh, Massimo Franceschetti, Tara Javidi, and Young-Han Kim, **"The secrecy capacity of the wiretap channel with rate-limited feedback,"** *IEEE Trans. Inf. Theory,* vol. 55, no. 12, pp. 5353–5361, December 2009.

[J9] Young-Han Kim, **"Feedback capacity of stationary Gaussian channels,"** *IEEE Trans. Inf. Theory,* vol. 56, no. 1, pp. 57–85, January 2010.

[J10] Young-Han Kim, Amos Lapidoth, and Tsachy Weissman, **"Error exponents for the Gaussian channel with active noisy feedback,"** *IEEE Trans. Inf. Theory,* vol. 57, no. 3, pp. 1223–1236, March 2011.

[J11] Sung Hoon Lim, Young-Han Kim, Abbas El Gamal, and Sae-Young Chung, **"Noisy network coding,"** *IEEE Trans. Inf. Theory,* vol. 57, no. 5, pp. 3132–3152, May 2011.

[J12] Haim H. Permuter, Young-Han Kim, and Tsachy Weissman, **"Interpretations of directed information in portfolio theory, data compression, and hypothesis testing,"** *IEEE Trans. Inf. Theory,* vol. 57, no. 6, pp. 3248–3259, June 2011.

[J13] Yuzhe Jin, Young-Han Kim, and Bhaskar D. Rao, **"Support recovery of sparse signals via multiple-access communication techniques,"** *IEEE Trans. Inf. Theory,* vol. 57, no. 12, pp. 7877–7892, December 2011.

[J14] Ehsan Ardestanizadeh, Michèle A. Wigger, Young-Han Kim, and Tara Javidi, **"Linear sum-capacity for Gaussian multiple access channels with feedback,"** *IEEE Trans. Inf. Theory,* vol. 58, no. 1, pp. 224–236, January 2012.

[J15] Tsachy Weissman, Young-Han Kim, and Haim H. Permuter, **"Directed information, causal estimation, and communication in continuous time,"** *IEEE Trans. Inf. Theory,* vol. 59, no. 3, pp. 1271–1287, March 2013.

[J16] Chiranjib Choudhuri, Young-Han Kim, and Urbashi Mitra, **"Causal state communication,"** *IEEE Trans. Inf. Theory,* vol. 59, no. 6, pp. 3709–3719, June 2013.

[J17] Yu Xiang and Young-Han Kim, **"Gaussian channel with noisy feedback and peak energy constraint,"** *IEEE Trans. Inf. Theory,* vol. 59, no. 8, pp. 4746–4756, August 2013.

[J18] Jiantao Jiao, Lei Zhao, Haim H. Permuter, Young-Han Kim, and Tsachy Weissman, **"Universal estimation of directed information,"** *IEEE Trans. Inf. Theory,* vol. 59, no. 10, pp. 6220–6242, October 2013.

[J19] Sung Hoon Lim, Paolo Minero, and Young-Han Kim, **"A unified approach to hybrid coding,"** *IEEE Trans. Inf. Theory,* vol. 61, no. 4, pp. 1509–1523, April 2015.

[J20] Bernd Bandemer, Abbas El Gamal, and Young-Han Kim, **"Optimal achievable rates for interference networks with random codes,"** *IEEE Trans. Inf. Theory,* vol. 61, no. 12, pp. 6536–6549, December 2015.

[J21] Kwang Taik Kim, Seok-Ki Ahn, Yong-Seok Kim, Jeongho Park, Chiao-Yi Chen, and Young-Han Kim, **"Interference management via sliding-window coded modulation for 5G cellular networks,"** *IEEE Comm. Mag.,* vol. 54, no. 11, pp. 82–89, November 2016.

[J22] Jing Li and Young-Han Kim, **"Partial decode–forward relaying for the Gaussian two-hop relay network,"** *IEEE Trans. Inf. Theory,* vol. 62, no. 12, pp. 7078–7085, December 2016.

[J23] Xianglan Jin and Young-Han Kim, **"The approximate capacity of the MIMO relay channel,"** *IEEE Trans. Inf. Theory,* vol. 63, no. 2, pp. 1167–1176, February 2017.

[J24] Sung Hoon Lim, Kwang Taik Kim, and Young-Han Kim, **"Distributed decode–forward for relay networks,"** *IEEE Trans. Inf. Theory,* vol. 63, no. 7, pp. 4103–4118, July 2017.

MANUSCRIPTS

[M1] Fatemeh Arbabjolfaei and Young-Han Kim, **"Structural properties of index coding capacity,"** submitted to *IEEE Trans. Inf. Theory,* August 2016.

[M2] Lele Wang, Young-Han Kim, Chiao-Yi Chen, Hosung Park, and Eren Şaşoğlu, **"Sliding-window superposition coding: Two-user interference channels,"** submitted to *IEEE Trans. Inf. Theory,* January 2017.

CONFERENCE PROCEEDINGS

[C1] Arak Sutivong, Thomas M. Cover, Mung Chiang, and Young-Han Kim, **"Rate vs. distortion trade-off for channels with state information,"** *Proc. IEEE Int. Symp. Inf. Theory,* p. 226, Lausanne, Switzerland, June/July 2002.

[C2] Young-Han Kim and Amos Lapidoth, **"On the log determinant of non-central Wishart matrices,"** *Proc. IEEE Int. Symp. Inf. Theory,* p. 54, Yokohama, Japan, June/July 2003.

[C3] Young-Han Kim, Arak Sutivong, and Styrmir Sigurjónsson, **"Multiple user writing on dirty paper,"** *Proc. IEEE Int. Symp. Inf. Theory,* p. 534, Chicago, IL, June/July 2004.

[C4] Styrmir Sigurjónsson and Young-Han Kim, **"On multiple user channels with causal state information at the transmitters,"** *Proc. IEEE Int. Symp. Inf. Theory,* pp. 72–76, Adelaide, Australia, September 2005.

[C5] Young-Han Kim, **"Feedback capacity of the first-order moving average Gaussian channel,"** *Proc. IEEE Int. Symp. Inf. Theory,* pp. 416–420, Adelaide, Australia, September 2005.

[C6] Young-Han Kim, **"On the feedback capacity of stationary Gaussian channels,"** invited paper, *Proc. 43rd Ann. Allerton Conf. Comm. Control, and Comput.,* Monticello, IL, September 2005.

[C7] Young-Han Kim, **"Feedback capacity of stationary Gaussian channels,"** *Proc. IEEE Int. Symp. Inf. Theory,* pp. 59–63, Seattle, WA, July 2006.

[C8] Young-Han Kim, Amos Lapidoth, and Tsachy Weissman, **"On reliability of Gaussian channels with noisy feedback,"** invited paper, *Proc. 44th Ann. Allerton Conf. Comm. Control Comput.,* pp. 364–371, Monticello, IL, September 2006.

[C9] Young-Han Kim, Amos Lapidoth, and Tsachy Weissman, **"Bounds on the error exponent of the AWGN channel with AWGN-corrupted feedback,"**, *Proc. 24th IEEE Conv. Elec. Electron. Eng. Israel,* pp. 184–188, Eilat, Israel, November 2006.

[C10] Thomas M. Cover and Young-Han Kim, **"Capacity of a class of deterministic relay channels,"** *Proc. IEEE Int. Symp. Inf. Theory,* pp. 591–595, Nice, France, June 2007.

[C11] Thomas M. Cover, Young-Han Kim, and Arak Sutivong, **"Simultaneous communication of data and state,"** *Proc. IEEE Int. Symp. Inf. Theory,* pp. 916–920, Nice, France, June 2007.

[C12] Young-Han Kim, Amos Lapidoth, and Tsachy Weissman, **"The Gaussian channel with noisy feedback,"** *Proc. IEEE Int. Symp. Inf. Theory,* pp. 1416–1420, Nice, France, June 2007.

[C13] Young-Han Kim, **"A coding theorem for a class of stationary channels with feedback,"** *Proc. IEEE Int. Symp. Inf. Theory,* pp. 1856–1860, Nice, France, June 2007.

[C14] Young-Han Kim, **"Coding techniques for primitive relay channels,"** invited paper, *Proc. 45th Ann. Allerton Conf. Comm. Control Comput.,* Monticello, IL, pp. 129–135, September 2007.

[C15] Ehsan Ardestanizadeh, Massimo Franceschetti, Tara Javidi, and Young-Han Kim, **"Wiretap channel with rate-limited feedback,"** *Proc. IEEE Int. Symp. Inf. Theory,* pp. 101-105, Toronto, Canada, July 2008.

[C16] Haim H. Permuter, Young-Han Kim, and Tsachy Weissman, **"On directed information and gambling,"** *Proc. IEEE Int. Symp. Inf. Theory,* pp. 1403-1407, Toronto, Canada, July 2008.

[C17] Young-Han Kim, **"Multiple descriptions with codebook reuse,"** invited paper, *Proc. 42nd Asilomar Conf. Signals Syst. Comput.,* pp. 686–688, Pacific Grove, CA, October 2008.

[C18] Young-Han Kim, Haim H. Permuter, and Tsachy Weissman, **"Directed information, causal estimation, and communication in continuous time,"** invited paper, *Proc. 7th Int. Symp. Model. Opt. Mobile Ad Hoc Wireless Netw. (WiOPT),* Seoul, Korea, June 2009, 7 pp.

[C19] Sung Hoon Lim, Young-Han Kim, and Sae-Young Chung, **"Deterministic relay networks with state information,"** *Proc. IEEE Int. Symp. Inf. Theory,* pp. 36–40, Seoul, Korea, June/July 2009.

[C20] Halyun Jeong and Young-Han Kim, **"Sparse linear representation,"** *Proc. IEEE Int. Symp. Inf. Theory,* pp. 329–333, Seoul, Korea, June/July 2009.

[C21] Young-Han Kim, Haim H. Permuter, and Tsachy Weissman, **"Directed information and causal estimation in continuous time,"** *Proc. IEEE Int. Symp. Inf. Theory,* pp. 819–823, Seoul, Korea, June/July 2009.

[C22] Paolo Minero and Young-Han Kim, **"Correlated sources over broadcast channels,"** *Proc. IEEE Int. Symp. Inf. Theory,* pp. 2780–2784, Seoul, Korea, June/July 2009.

[C23] Ehsan Ardestanizadeh, Tara Javidi, Young-Han Kim, and Michèle A. Wigger, **"On the sum capacity of the Gaussian multiple access channel with feedback,"** invited paper, *Proc. 47th Ann. Allerton Conf. Comm. Control Comput.,* pp. 872–878, Monticello, IL, September 2009.

[C24] Sung Hoon Lim, Young-Han Kim, Abbas El Gamal, and Sae-Young Chung, **"Noisy network coding,"** invited paper, *Proc. IEEE Inf. Theory Workshop,* Cairo, Egypt, January 2010, 5 pp.

[C25] Young-Han Kim, Amos Lapidoth, and Tsachy Weissman, **"Error exponents for the Gaussian channel with noisy active feedback,"** invited paper, *Proc. IEEE Inf. Theory Workshop,* Cairo, Egypt, January 2010, 3 pp.

[C26] Sung Hoon Lim, Young-Han Kim, and Sae-Young Chung, **"A coding theorem for a class of deterministic relay networks,"** *Proc. IEEE Inf. Theory Workshop,* Cairo, Egypt, January 2010, 5 pp.

[C27] Yu Xiang and Young-Han Kim, **"On the AWGN channel with noisy feedback and peak energy constraint,"** *Proc. IEEE Int. Symp. Inf. Theory,* pp. 256–259, Austin, TX, June 2010.

[C28] Ehsan Ardestanizadeh, Michèle A. Wigger, Young-Han Kim, and Tara Javidi, **"Linear sum capacity for Gaussian multiple access channel with feedback,"** *Proc. IEEE Int. Symp. Inf. Theory,* pp. 430–434, Austin, TX, June 2010.

[C29] Sung Hoon Lim, Young-Han Kim, Abbas El Gamal, and Sae-Young Chung, **"Multi-source noisy network coding,"** *Proc. IEEE Int. Symp. Inf. Theory,* pp. 604–608, Austin, TX, June 2010.

[C30] Lei Zhao, Haim H. Permuter, Young-Han Kim, and Tsachy Weissman, **"Universal estimation of directed information,"** *Proc. IEEE Int. Symp. Inf. Theory,* pp. 1433–1437, Austin, TX, June 2010.

[C31] Yuzhe Jin, Young-Han Kim, and Bhaskar Rao, **"Performance tradeoffs for exact support recovery of sparse signals,"** *Proc. IEEE Int. Symp. Inf. Theory,* pp. 1558–1562, Austin, TX, June 2010.

[C32] Sung Hoon Lim, Young-Han Kim, Abbas El Gamal, and Sae-Young Chung, **"Layered noisy network coding,"** *Proc. 3rd IEEE Int. Workshop Wireless Netw. Coding,* Boston, MA, June 2010, 6 pp.

[C33] Paolo Minero, Sung Hoon Lim, and Young-Han Kim, **"Lossy communication of correlated sources over multiple access channels,"** invited paper, *Proc. 48th Ann. Allerton Conf. Comm. Control Comput.,* pp. 851–858, Monticello, IL, September 2010.

[C34] Chiranjib Choudhuri, Young-Han Kim, and Urbashi Mitra, **"Capacity-distortion tradeoff in channels with state,"** *Proc. 48th Ann. Allerton Conf. Comm. Control Comput.,* pp. 1311–1318, Monticello, IL, September 2010.

[C35] Paolo Minero, Sung Hoon Lim, and Young-Han Kim, **"Joint source–channel coding via hybrid coding,"** *Proc. IEEE Int. Symp. Inf. Theory,* pp. 884–888, Saint Petersburg, Russia, August 2011.

[C36] Young-Han Kim, Sung Hoon Lim, and Paolo Minero, **"Relaying via hybrid coding,"** *Proc. IEEE Int. Symp. Inf. Theory,* pp. 1946–1950, Saint Petersburg, Russia, August 2011.

[C37] Chiranjib Choudhuri, Young-Han Kim, and Urbashi Mitra, **"Causal state amplification,"** *Proc. IEEE Int. Symp. Inf. Theory,* pp. 2036–2040, Saint Petersburg, Russia, August 2011.

[C38] Lele Wang and Young-Han Kim, **"Sum-capacity of multiple-write noisy memory,"** *Proc. IEEE Int. Symp. Inf. Theory,* pp. 2494–2498, Saint Petersburg, Russia, August 2011.

[C39] Yu Xiang, Lele Wang, and Young-Han Kim, **"Information flooding,"** invited paper, *Proc. 49th Ann. Allerton Conf. Comm. Control Comput.,* Monticello, IL, pp. 45–51, September 2011.

[C40] Haim H. Permuter, Young-Han Kim, and Tsachy Weissman, **"Continuous-time directed information and its role in communication,"** *Proc. IEEE Inf. Theory Workshop,* Paraty, Brazil, October 2011, 5 pp.

[C41] Jiantao Jiao, Haim H. Permuter, Lei Zhao, Young-Han Kim, Tsachy Weissman, **"Universal estimation of directed information via sequential probability assignments,"** *Proc. IEEE Int. Symp. Inf. Theory,* pp. 523–527, Cambridge, MA, July 2012.

[C42] Lele Wang, Minghai Qin, Eitan Yaakobi, Young-Han Kim, and Paul Siegel, **"WOM with retained messages,"** *Proc. IEEE Int. Symp. Inf. Theory,* pp. 1396–1400, Cambridge, MA, July 2012.

[C43] Bernd Bandemer, Abbas El Gamal, and Young-Han Kim, **"Simultaneous nonunique decoding is rate-optimal,"** *Proc. 50th Ann. Allerton Conf. Comm. Control Comput.,* pp. 9–16, Monticello, IL, October 2012.

[C44] Yu Xiang and Young-Han Kim, **"Interactive hypothesis testing with communication constraints,"** *Proc. 50th Ann. Allerton Conf. Comm. Control Comput.,* pp. 1065-1072, Monticello, IL, October 2012.

[C45] Fatemeh Arbabjolfaei, Bernd Bandemer, Young-Han Kim, Eren Şaşoğlu, and Lele Wang, **"On the capacity region for index coding,"** *Proc. IEEE Int. Sym. Inf. Theory,* pp. 962–966, Istanbul, Turkey, July 2013.

[C46] Lele Wang, Eren Şaşoğlu, Bernd Bandemer, and Young-Han Kim, **"A comparison of superposition coding schemes,"** *Proc. IEEE Int. Sym. Inf. Theory,* pp. 2970–2974, Istanbul, Turkey, July 2013.

[C47] Yu Xiang and Young-Han Kim, **"Interactive hypothesis testing against independence,"** *Proc. IEEE Int. Sym. Inf. Theory,* pp. 2840–2844, Istanbul, Turkey, July 2013.

[C48] Eddy Kwon, Young-Han Kim, Bhaskar D. Rao, **"Uniform power allocation with thresholding over Rayleigh slow fading channels with QAM inputs,"** *Proc. IEEE Vehicular Tech. Conf.,* Las Vegas, Nevada, September 2013, 5 pp.

[C49] Paolo Minero, Sung Hoon Lim, and Young-Han Kim, **"Hybrid coding: A new paradigm for relay communication,"** *Proc. IEEE Global Conf. Signal Inf. Proc.,* Austin, Texas, December 2013, 4 pp.

[C50] Fatemeh Arbabjolfaei, Bernd Bandemer, and Young-Han Kim, **"Index coding via random coding,"** *Proc. 2nd Iran Works. Comm. Inf. Theory,* Tehran, Iran, May 2014, 7 pp.

[C51] Fatemeh Arbabjolfaei and Young-Han Kim, **"Local time sharing for index coding,"** *Proc. IEEE Int. Symp. Inf. Theory,* pp. 286–290, Honolulu, Hawaii, July 2014.

[C52] Sung Hoon Lim, Kwang Taik Kim, and Young-Han Kim, **"Distributed decode-forward for multicast,"** *Proc. IEEE Int. Symp. Inf. Theory,* pp. 286–290, Honolulu, Hawaii, July 2014.

[C53] Xianglan Jin and Young-Han Kim, **"Approximate capacity of the MIMO relay channel,"** *Proc. IEEE Int. Symp. Inf. Theory,* pp. 286–290, Honolulu, Hawaii, July 2014.

[C54] Lele Wang, Eren Şaşoğlu, and Young-Han Kim, **"Sliding-window superposition coding for interference networks,"** *Proc. IEEE Int. Symp. Inf. Theory,* pp. 286–290, Honolulu, Hawaii, July 2014.

[C55] Jing Li and Young-Han Kim, **"Partial decode–forward relaying for the Gaussian two-hop relay network,"** *Proc. 52nd Ann. Allerton Conf. Comm. Control Comput.,* Monticello, Illinois, October 2014, 4 pp.

[C56] Sudeep Kamath and Young-Han Kim, **"Chop and roll: Improving the cutset bound,"** *Proc. 52nd Ann. Allerton Conf. Comm. Control Comput.,* Monticello, Illinois, October 2014, 7 pp.

[C57] Yi Xu and Young-Han Kim, **"Linear relaying for Gaussian diamond networks,"** *Proc. 52nd Ann. Allerton Conf. Comm. Control Comput.,* Monticello, Illinois, October 2014, 6 pp.

[C58] Yu Xiang and Young-Han Kim, **"A few meta-theorems in network information theory,"** *Proc. IEEE Inf. Theory Works.,* pp. 77–81, Hobart, Australia, November 2014.

[C59] Sung Hoon Lim, Kwang Taik Kim, and Young-Han Kim, **"Distributed decode-forward for broadcast,"** *Proc. IEEE Inf. Theory Works.,* pp. 557–561, Hobart, Australia, November 2014.

[C60] Hosung Park, Young-Han Kim, and Lele Wang, **"Interference management via sliding-window superposition coding,"** *Proc. IEEE GLOBECOM Works.,* pp. 972–976, Austin, TX, December, 2014.

[C61] Fatemeh Arbabjolfaei and Young-Han Kim, **"Structural properties of index coding capacity using fractional graph theory,"** *Proc. IEEE Int. Symp. Inf. Theory,* pp. 1034–1038, Hong Kong, June 2015.

[C62] Lele Wang and Young-Han Kim, **"Linear code duality between channel coding and Slepian–Wolf coding,"** *Proc. 53rd Ann. Allerton Conf. Comm. Control Comput.,* pp. 147–152, Monticello, Illinois, October 2015.

[C63] Fatemeh Arbabjolfaei and Young-Han Kim, **"Three stories on a two-sided coin: Index coding, locally recoverable distributed storage, and guessing games on graphs,??** *Proc. 53rd Ann. Allerton Conf. Comm. Control Comput.,* pp. 843–850, Monticello, Illinois, October 2015.

[C64] Fatemeh Arbabjolfaei and Young-Han Kim, **"On critical index coding problems,??** *Proc. IEEE Inf. Theory Works.,* pp. 9–13, Jeju, Korea, October 2015.

[C65] Kwang Taik Kim, Seok-Ki Ahn, Young-Han Kim, Hosung Park, Lele Wang, Chiao-Yi Chen, and Jeongho Park, **"Adaptive sliding-window coded modulation in cellular networks,"** *Proc. IEEE Global Commun. Conf.,* 7 pp., San Diego, CA, December 2015.

[C66] Fatemeh Arbabjolfaei and Young-Han Kim, **"Approximate capacity of index coding for some classes of graphs,"** *Proc. IEEE Int. Symp. Inf. Theory,* pp. 2154–2158, Barcelona, Spain, July 2016.

[C67] Parastoo Sadeghi, Fatemeh Arbabjolfaei, and Young-Han Kim, **"Distributed index coding,"** *Proc. IEEE Inf. Theory Works.,* pp. 330–334, Cambridge, United Kingdom, September 2016.

[C68] Haowei Jiang, Po-Han Peter Wang, Li Gao, Pinar Sen, Young-Han Kim, Gabriel M. Rebeiz, Drew A. Hall, and Patrick P. Mercier, **"A 4.5nW wake-up radio with -69dBm sensitivity,"** *Proc. IEEE Int. Solid-State Circuits Conf.,* pp. 416–417, San Francisco, CA, February 2017.

[C69] Pinar Sen and Young-Han Kim, **"Homologous codes for multiple access channels,"** *Proc. IEEE Int. Symp. Inf. Theory,* pp. 874–878, Aachen, Germany, June 2017.

[C70] Shouvik Gangul and Young-Han Kim, **"On the capacity of cloud radio access networks,"** *Proc. IEEE Int. Symp. Inf. Theory,* pp. 2063–2067, Aachen, Germany, June 2017.

[C71] Yucheng Liu, Parastoo Sadeghi, Fatemeh Arbabjolfaei, and Young-Han Kim, **"On the capacity for distributed index coding,"** *Proc. IEEE Int. Symp. Inf. Theory,* pp. 3065–3069, Aachen, Germany, June 2017.

[C72] Young-Han Kim, **"An information-theoretic perspective on interference management,"** *IEICE Tech. Rep.,* vol. 117, no. 120, IT2017-37, pp. 121–126, Chiba, Japan, July 2017.