

International Journal

2016

- [1] Um, Jung Sun, et al. "Location-Probability-based Transmission Strategy for white space devices with multiple antennas in TV white space," *IEEE Vehicular Technology Society*, 2016.
- [2] Cho, Hoonkyung, Joochan Chun, and Sungchan Song. "The performance analysis of three-dimensional track-before-detect algorithm based on Fisher-Tippett-Gnedenko theorem," *Infrared Physics & Technology*, 2016
- [3] Hoonkyung Cho, Joochan Chun, Taeseung Lee, Seungjae Lee, Daeyoung Chae, "Spatiotemporal radar target identification using radar cross-section modeling and hidden Markov models," *IEEE Transactions on Aerospace and Electronic Systems* 52.3: 1284-1295, Jun. 2016
- [4] H. Yang and J. Chun, "An Improved Algebraic Solution for Moving Target Localization in Noncoherent MIMO Radar Systems," *IEEE Transactions on Signal Processing*, Vol. 64, No. 1, pp. 258-270, Jan. 2016.
- [5] S. Kwak and J. Chun, "Asymmetric sum and difference beam pattern synthesis with a common weight vector," *IEEE Antennas and Wireless Propagation Letters*, Vol. PP, No. 99, pp. 1, Jan. 2016.

2015

- [1] S. Choi, J. Chun, I. Paek and J. Jang, "A Stochastic CRB for Non-unitary Beam-space Transformations and Its Application to Optimal Steering Angle Design," *IEEE Signal Processing Letters*, Vol. 22, No. 11, pp. 2014-2018, Nov. 2015.
- [2] H. Cho, J. Chun, S. Song and S. Jung, "Improvement of track-to-track fusion for dual-mode homing guidance with target-orientation measurements," *Optical Engineering - The Journal of SPIE*, vol. 54, no. 10, pp. 103110-103110, Oct. 2015.
- [3] B. Koh, S. Choi and J. Chun, "A SAR Autofocus Technique With MUSIC and Golden Section Search for Range Bins With Multiple Point Scatterers," *IEEE Geoscience and Remote Sensing Letters*, Vol. 12, No. 8, pp. 1600-1604, Aug. 2015.
- [4] H. Yang, J. Chun and D. Chae, "Hyperbolic Localization in MIMO Radar Systems," *IEEE Antennas and Wireless Propagation Letters*, Vol. 14, pp. 618-621, Feb. 2015.

2014

- [1] D. Park, E. Yang, S. Ahn and J. Chun, "Adaptive beamforming for low-angle target tracking under multipath interference," *IEEE Trans. Aerospace and Electronics Systems*, Vol. 50, No. 4, pp. 2564-2577, Oct. 2014.

- [2] B. Koh, S. Choi and J. Chun, "A Hybrid SAR Autofocus Techniques by Two Methods of Sub-Aperture Estimation and Iterative Golden Section Search," *Progress In Electromagnetics Research*, Vol. 38, pp. 63-71, Aug. 2014.
- [3] N. Lee and J. Chun, "Degrees of freedom for a MIMO Gaussian K-way relay channel : Successive network code encoding and decoding," *IEEE Trans. Information Theory*, Vol. 60, No. 3, pp. 1814-1821, Mar. 2014.
- [4] J. Park, B. Clerckx, J. Chun and B. Jeong, "Lattice reduction-aided successive interference cancellation for MIMO interference channels," *IEEE Trans. Veh. Technol.*, Vol. 63, No. 8, pp.4131-4135, Jan. 2014.

2013

- [1] J. Park, J. Chun, B. Jeong, "Cross relation based frequency-domain blind channel estimation with multiple antennas in OFDM systems," *IET Communications*, Vol. 7, No. 16, pp. 1753-1768, Nov. 2013.
- [2] Y. Choi, J. Chun, T. Kim and J. Bae, "The Schur algorithm applied to the one-dimensional continuous inverse scattering problem," *IEEE Trans. Signal Process.*, Vol. 61, No. 13, pp. 3311-3320, Jun. 2013.
- [3] H. Cho, J. Chun, D. Seo and S. Choi, "Range estimation of passive infrared targets through the atmosphere," *Optical Engineering*, Vol. 52, No. 4, Apr. 2013.

2012

- [1] H. Park, J. Chun, and R. Adve, "Computationally efficient relay antenna selection for AF MIMO two-way relay channels," *IEEE Trans. Signal Process.*, vol. 60, no. 11, pp. 6091-6097, Nov. 2012.
- [2] H. Park, H. J. Yang, J. Chun, and R. Adve, "A closed-form power allocation and signal alignment for a diagonalized MIMO two-way relay channel with linear receivers," *IEEE Trans. Signal Process.*, vol. 60, no. 11, pp. 5948-5962, Nov. 2012.
- [3] J. Park and J. Chun, "Efficient lattice reduction aided MIMO successive interference cancellation for Clustered Multiuser MIMO System," *IEEE Trans. Veh. Technol.*, vol. 61, no. 8, pp. 3643-3655, Oct. 2012.
- [4] J. Park and J. Chun, "Improved lattice reduction-aided MIMO successive interference cancellation under imperfect channel estimation," *IEEE Trans. Signal Process.*, vol. 60, no. 6, pp. 3346-3351, June 2012.
- [5] H. J. Yang, J. Chun, Y. Choi, S. Kim, and A. Paulraj, "Codebook-based lattice-reduction-aided precoding for limited-feedback coded MIMO systems," *IEEE Trans. Commun.*, vol. 60, no. 2, pp. 510-524, Feb. 2012.
- [6] J. Park, J. Chun, and B. J. Jeong, "Efficient multi-user MIMO precoding based on GSVD and vector perturbation," *Signal Processing*, vol. 92, no. 2, pp. 611-615, Feb. 2012.

- [7] J. Chun and J. Park, "An efficient algorithm for a clustered integer least squares problem," *Numerical Linear Algebra with Applications*, vol. 19, no. 1, pp. 19-30, Jan. 2012.

2011

- [1] H. J. Yang, J. Chun, and A. Paulraj, "Asymptotic capacity of the separated MIMO two-way relay channel," *IEEE Trans. Inf. Theory*, vol. 57, no. 11, pp. 7542-7554, Nov. 2011.
- [2] B. W. Jung, R. S. Adve, J. Chun, and M. C. Wicks, "Detection performance using frequency diversity with distributed sensors," *IEEE Trans. Aerosp. Electron. Syst.*, vol. 47, no. 3, pp. 1800-1813, July 2011.
- [3] Y. Choi, J. Chun, and J. Bae, "Numerically extrapolated discrete layer-peeling algorithm for synthesis of nonuniform fiber Bragg gratings," *Opt. Exp.*, vol. 19, no. 9, pp. 8254-8266, Apr. 2011.
- [4] J. Park, J. Chun, and F. T. Luk, "Lattice reduction aided MMSE decision feedback equalizers," *IEEE Trans. Signal Process.*, vol. 59, no. 1, pp. 436-441, Jan. 2011.

2010

- [1] J. Kim, H. J. Yang, B. W. Jung, and J. Chun, "Blind calibration for a linear array with gain and phase error using independent component analysis," *IEEE Antennas Wireless Propag. Lett.*, vol. 9, pp. 1259-1262, 2010.
- [2] H. Park and J. Chun, "A two-stage antenna subset selection scheme for amplify-and-forward MIMO relay systems," *IEEE Signal Process. Lett.*, vol. 17, no. 11, pp. 953-956, Nov. 2010.
- [3] H. J. Yang, Y. Choi, and J. Chun, "Modified high-order PAMs for binary coded physical-layer network coding," *IEEE Commun. Lett.*, vol. 14, no. 8, pp. 689-691, Aug. 2010.
- [4] N. Lee, J. Lim, and J. Chun, "Degrees of the freedom of the MIMO Y channel: signal space alignment for network coding," *IEEE Trans. Info. Theory*, vol. 56, no. 7, pp. 3332-3342, July 2010.
- [5] J. Park, J. Chun, and H. Park, "Generalised singular value decomposition-based algorithm for multi-user multiple-input multiple-output linear precoding and antenna selection," *IET commun.*, vol. 4, no. 16, pp. 1899-1907, 2010.
- [6] E. Yang, R. Adve, J. Chun, and J. Chun, "Hybrid direct data domain sigma-delta space-time adaptive processing algorithm in non-homogeneous clutter," *IET Radar, Sonar and Navigation*, vol. 4, iss. 4, pp. 611-625, 2010.

- [7] J. Park and J. Chun, "DTV receivers using an adaptive switched beamformer with an online-calibration algorithm," *IEEE Trans. Consume. Electron.*, vol. 56, no. 1, Feb. 2010.

2009

- [1] H. Kim, J. Bae, and J. Chun, "Synthesis method based on genetic algorithm for designing EDFA gain flattening LPFGs having phase-shift effect," *Optical Fiber Technology*, vol. 15, no. 3, pp. 320-323, June 2009.
- [2] J. Park and J. Chun, "Pilot-based non-adaptive equalizers using an array antenna for DTV receivers," *IEEE Trans. on Consume. Electron.*, vol. 55, no. 1, pp. 42-48, Feb. 2009.

2008

- [1] E. Kim and J. Chun, "Coordinated beamforming with reduced overhead for the downlink of multiuser MIMO systems," *IEEE Commun. Lett.*, vol. 12, no. 11, pp. 810-812, Nov. 2008.
- [2] S. Kim and J. Chun, "Capacity and performance of lattice reduction aided linear processing with lattice encoding and decoding in limited feedback systems," *IEEE J. Sel. Areas Commun.*, vol. 26, no. 8, pp. 1567-1577, Oct. 2008.
- [3] V. Saveljev, J. Son, J. Chun, K. Kwack, and K. Cha, "About a moire-less condition for non-square grids," *IEEE/OSA Journal of Display Technology*, vol. 4, no. 3, pp. 332-339, Sept. 2008.

2007

- [1] K. Lee and J. Chun, "ML symbol detection based on the shortest path algorithm for MIMO systems," *IEEE Trans. Signal Process.*, vol. 55, no. 11, pp. 5477-5484, Nov. 2007.
- [2] H. Kim, J. Bae, and J. Chun, "Synthesis of flat-top bandpass filters using two band rejection LPFG," *IEEE Photon. Technol. Lett.*, vol. 19, no. 19, pp. 1466-1468, Oct. 2007.
- [3] K. Lee, J. Chun, and L. Hanzo, "Optimal lattice-reduction aided successive interference cancellation for MIMO systems," *IEEE Trans. Wireless Commun.*, vol. 6, no. 7, pp. 2438-2443, July 2007.
- [4] I. Kim, K. Lee, and J. Chun, "A MIMO antenna structure that combines transmit beamforming and spatial multiplexing," *IEEE Trans. Wireless Commun.*, vol. 6, no. 3, pp. 775-800, Mar. 2007.

- [5] K. Lee and J. Chun, "Symbol detection in V-BLAST architectures under channel estimation errors," *IEEE Trans. Wireless Commun.*, vol. 6, no. 2, Feb. 2007.
- [6] K. Lee and J. Chun, "Frequency offset estimation for MIMO and OFDM systems using orthogonal training sequences," *IEEE Trans. Veh. Technol.*, vol. 56, no. 1, pp. 146-156, Jan. 2007.
- [7] J. Wang, J. Chun, "Initial attitude determination using a single star sensor," *Transactions of the Japan Society for Aeronautical and Space Sciences*, vol. 50, no. 167, pp. 27-33, 2007.

2006

- [1] J. Bae, J. K. Bae, S. H. Kim, S. B. Lee, N. Park, and J. Chun, "Synthesis method based on optimization techniques for designing piecewise-uniform long period fiber gratings controlled by thermal changes," *Journal of Optical Society of America-B - Optical Physics*, vol. 23, no. 7, pp. 1241-1249, July 2006.
- [2] J. Wang and J. Chun, "Attitude determination using a single star sensor and star-density table," *Journal of Guidance and Control*, vol. 29, no. 6, pp. 1329-1338, 2006.

2005

- [1] J. Bae, J. Chun, and T. Kailath, "The Schur algorithm applied to the design of optical multi-mirror structures", *Numerical Linear Algebra with Applications*, vol. 12, no. 1, pp. 283-292, Mar. 2005.
- [2] S. Shin, J. Chun, Y. Park, and J. Wang, "Model-based angle-only tracking of known aircraft target using single imaging sensor", *Transactions of the Japan Society for Aeronautical and Space Sciences*, vol. 47, no. 158, pp. 231-239, Feb. 2005.

2004

- [1] M. Cho, C. H. Lee, S. Kim, and J. Chun, "Robust space time receiver for CDMA-based antenna arrays," *International Journal of Electronics and communications*, vol. 58, no. 4, pp. 299-301, Sept. 2004.
- [2] J. Bae, J. Chun, and S. B. Lee, "Synthesis of long-period fiber gratings with the inverted erbium gain spectrum using the multi-port lattice filter model," *IEEE J. Lightw. Technol.*, vol. 22, no. 8, pp. 1976-1986, Aug. 2004.
- [3] M. Cho, C. H. Lee, J. Lee, K. Lee, J. Chun, and J. H. Lee, "Experimental verification of an on-line calibration algorithm for a circular CDMA antenna-array", *International Journal of Electronics and Communications*, vol. 58, no. 3, pp. 232-234, May 2004.

- [4] Bae, J. Bae, S. Kim, S. Lee, and J. Chun, "Analysis for long period fiber gratings using thermal kernel function," *Optics Express*, vol. 12, no. 5, pp. 797-810, Mar. 2004.
- [5] S. Cho, J. Bae, and J. Chun, "A low-cost orbit determination method for mobile communication satellites," *Trans. of the Japan Society for Aeronautical and Space Sciences*, vol. 46, no. 154, pp. 271-274, Feb. 2004.

2003

- [1] H. Kim, J. Bae, J. Lee, J. Chun, and S. Lee, "Analysis of concatenated LPFGs having phase-shifted and cascaded effects," *Jpn. J. Appl. Phys.*, vol. 42, no. 8, pp. 5098-5101, Aug. 2003.
- [2] J. Chun, T. Kailath, and J. Son, "A nonlinear estimation algorithm and its optical implementation for target tracking in clutter environment", *Japanese Journal of Applied Physics - Part 1: Regular Papers and Short Notes*, vol. 42, no. 2a, pp. 466-470, Feb. 2003.
- [3] J. Bae and J. Chun, "Numerical optimization approach for designing bandpass filters using fiber Bragg gratings," *Optical Engineering*, vol. 42, pp. 23-29, Jan. 2003.

2002

- [5] C. H. Lee and J. Chun, "A subspace-based online calibration algorithm for an asynchronous CDMA-based antenna array," *Signal Processing*, vol. 82, iss. 9, pp. 1255-1268, Sept. 2002.
- [6] J. Bae, J. Chun, S. B. Lee, and S. Kim, "A new layer-peeling algorithm for lossy media without using phase information," *Jpn. J. Appl. Phys.*, vol. 41, no. 7a, pp. L770-L772, July 2002.
- [7] J.-Y. Son, Y. Gruts, J. Chun, Y. J. Choi, J.-E. Bahn, and V. I. Bobrinev, "Distortion analysis in stereoscopic images," *Optical Engineering - The Journal of SPIE*, vol. 41, no. 3, pp. 680-685, Mar. 2002.
- [8] J. Bae, J. Chun, and S. B. Lee, "Equalization of erbium gain spectrum using the multiport lattice filter," *Fiber and Integrated Optics*, vol. 21, iss. 1, pp. 31-42, Jan. 2002.

2000

- [1] J. Bae, J. Chun, and S. Lee, "Multiport lattice filter model for long period fiber gratings", *Jpn. J. Appl. Phys. - Part 1: Regular Papers and Short Notes*, vol. 39, no. 12a, pp. 6476-6577, Dec. 2000.
- [2] K. Kim and J. Chun, "Convergence behavior of the Schur recursion in the Krein space for J-spectral factorization," *IEEE Trans. Autom. Control*, vol. 45, no. 10, pp. 1899-1903, Oct. 2000.
- [3] J. Bae, J. Chun, and S. B. Lee, "Analysis of the fiber Bragg gratings using the lattice filter model," *Jpn. J. Appl. Phys.*, vol. 39, no. 4a, pp. 1752-1756, Apr. 2000.
- [4] J. Chun and J.Chun, "Nonlinear filtering using the wavelet transform," *Signal Processing*, vol. 80, iss. 3, pp. 441-450, Mar. 2000.

Before 2000

- [1] S. Kim, J. Son, J. Chun, and T. Lim, "Holographic video system using Fourier transform and data reduction," *Jpn. J. Appl. Phys. Part 1*, vol. 38, no. 11, pp. 272-277, Nov. 1999.
- [2] S. Kim and J. Chun, "Blind space-time minimum variance CDMA receiver for a multipath channel," *IEE Electron. Lett.*, vol. 35, no. 21, pp.1799-1801, Oct. 1999.
- [3] J. Son, A. Strilets, J. Chun, S. Shin, Y. Choi, and H. Lee, "Possibility of measuring displacement with sub-nanometre accuracy by ring laser operating in lock-in regime," *IEE Electron. Lett.*, vol. 35, no. 15, pp. 1258-1260, July 1999.
- [4] J. Bae, J. Chun, and S. B. Lee, "Two methods for synthesizing the long period fiber gratings with the inverted Erbium gain spectrum," *Jpn. J. Appl. Phys. Part 2*, vol. 38, no. 7B, pp. L819-L822, July 1999.
- [5] J. Son, S. Shestak, V. Epikhin, J. Chun, and S. Kim, "Multichannel acousto-optic Bragg cell for real-time electroholography," *Applied Optics*, vol. 38, no. 14, pp. 3101-3104, May 1999.
- [6] T. Kailath and J. Chun, "Generalized displacement structure for block-Toeplitz, Toeplitz-block, and Toeplitz-derived matrices," *SIAM Journal on Matrix Analysis and Applications*, vol. 15, no. 1, pp. 114-128, Jan. 1994.p
- [7] J. Chun and T. Kailath, "Systolic array implementation of square-root Chandrasekhar filter," *International Journal of Control*, vol. 54, no. 6, pp. 1385-1398, Jan. 1991.
- [8] J. Chun and T. Kailath, "Displacement structure for Hankel, Vandermonde, and related (derived) matrices," *Linear Algebra and its Applications*, vol. 151, pp. 199-227, Jan. 1991.
- [9] J. Chun and T. Kailath, "Divide-and-conquer solutions of least squares problems for matrices with displacement structure," *SIAM Journal on Matrix Analysis and Applications*, vol. 12, no. 1, pp. 128-145, Jan.1991.

- [10] J. Chun and T. Kailath, "A constructive proof of the Gohberg-Semencul formula," *Linear Algebra and its Applications*, vol. 121, pp. 475-489, Aug. 1989.
- [11] T. Kailath and J. Chun, "Generalized Gohberg-Semencul formulas for matrix inversion," *Operator Theory - Advance and Applications*, vol. 40, pp. 231-246, 1989
- [12] J. Chun, T. Kailath, and H. Lev-Ari, "Fast parallel algorithms for QR and triangular factorization of structured matrices," *SIAM Journal on Scientific and Statistical Computing*, vol. 8, no. 6, pp. 899-913, Nov. 1987.