

## JUN HWAN (BRANDON) CHOI

University at Buffalo, The State University of New York  
Department of Electrical Engineering  
230 K Davis Hall, Buffalo, NY 14260  
(phone): 716-645-1148, (email): junhchoi@buffalo.edu  
(homepage): <http://www.eng.buffalo.edu/~junhchoi>

### EDUCATION

University of California, Los Angeles <i>Dissertation title: Electromagnetic devices based on periodic structures</i> <i>Advisor: Tatsuo Itoh</i>	Electrical Engineering	Ph.D., 2014
University of California, Los Angeles <i>Thesis title: 60-GHz antennas on polyimide substrate</i> <i>Advisor: Tatsuo Itoh</i>	Electrical Engineering	M.S., 2007
University of California, Irvine	Electrical Engineering	B.S., 2003

### ACADEMIC APPOINTMENTS

<b>Associate Professor, Department of Electrical Engineering</b> University at Buffalo, Buffalo, NY	Sep. 2021 - present
<b>Assistant Professor, Department of Electrical Engineering</b> University at Buffalo, Buffalo, NY	Aug. 2017 – Aug. 2021
<b>Assistant Research Professor, Department of Electrical Engineering and Computer Science</b> Syracuse University, Syracuse, NY	Sep. 2017 – Aug. 2019
<b>Assistant Professor, Department of Electrical Engineering and Computer Science</b> Syracuse University, Syracuse, NY	Aug. 2014 – Aug. 2017
<b>Junior Development Engineer, Department of Electrical Engineering</b> University of California, Los Angeles, CA	Mar. 2014 - Jun. 2014
<b>Graduate Student Researcher, Department of Electrical Engineering</b> University of California, Los Angeles, CA	Sep. 2008 - Mar. 2014
<b>Special Joint Researcher</b> Japan Aerospace Exploration Agency, Sagamihara, Japan	Mar. 2013
<b>Graduate Student Researcher, Department of Electrical Engineering</b> University of California, Los Angeles, CA	Sep. 2005 - May. 2007
<b>Undergraduate Student Researcher, Department of Electrical Engineering and Computer Science</b> University of California, Irvine, CA	Aug. 2000 - Jun. 2003

### INDUSTRY EXPERIENCE

<b>RF Intern</b> Broadcom Corporation, Irvine, CA	Jun. 2013 - Sep. 2013
--	-----------------------

<b>RF Engineer</b> Kyocera Wireless Corporation, San Diego, CA	Oct. 2007 - Aug. 2008
<b>Antenna Intern</b> Qualcomm Incorporated, San Diego, CA	May. 2007 - Sep. 2007
<b>Hardware Engineer</b> AnyDATA Corporation, Irvine, CA	Jun. 2004 - Sep. 2005
<b>Process Engineer/Research Staff</b> Integrated Nanosystems Research Facility, University of California, Irvine	Jun. 2003 - Jun. 2004

## HONORS AND AWARDS

- IEEE Transactions on Antenna & Propagation - Top Reviewer Award, 2018-2019.
- K. Payne, K. Xu, J. H. Choi, and J. K. Lee, "Plasma enabled adaptive absorber for high power microwave applications," *IEEE Trans. Plasma Sci.*, published in 2018 - selected as a "Highlight Paper."
- Air Force Office of Scientific Research Young Investigator Program Award (AFOSR YIP), 2017.
- IEEE Transactions on Antenna & Propagation - Top Reviewer Award, 2015-2016.
- IEEE International Symposium on Antenna and Propagation Student Paper Competition Finalist – 2<sup>nd</sup> Place Award, 2015.
- IEEE International Microwave Symposium Student Paper Competition Finalist, 2014.
- IEEE International Microwave Symposium Student Paper Competition Finalist – Honorable Mention Award, 2012.

## PUBLICATIONS

### DISSERTATION AND THESES

- [DT2] J. H. Choi, "Electromagnetic devices based on periodic structures," Doctoral dissertation, University of California, Los Angeles, 2014.
- [DT1] J. H. Choi, "60-GHz antennas on polyimide substrate," Master of Science thesis, University of California, Los Angeles, 2007.

### BOOK CHAPTERS

- [BC2] J. H. Choi and T. Itoh, "Beam-scanning leaky-wave antennas," in *Handbook of Antenna Technologies*, Springer Science and Business Media, Oct. 2016.
- [BC1] J. Choi, S. Breugnot, and T. Itoh, "Microwave interferometer for non-destructive testing," in *Review of Quantitative Nondestructive Evaluation (ed. D. O. Thompson and D. E. Chimenti)*, pp. 2092–2099, vol. 29, American Institute of Physics, 2010.

### PEER REVIEWED JOURNAL PAPERS

(\* denotes graduate students, and † denotes undergraduate students, advised by J. Choi)

- [J26] A. Mitra, K. Xu\*, K. Payne, J. H. Choi, and J-B. Lee, "Fabrication of a multilayer X-band band-pass metasurface using liquid metal," *IEEE Electron Device Lett.*, *accepted for publication*, 2022. (Impact factor = 4.816)
- [J25] A. Mitra, K. Xu\*, S. Babu, J. H. Choi, and J-B. Lee, "Liquid-metal-enabled flexible metasurface with self-healing characteristics," *Advanced Material Interfaces.*, vol. 9, no. 12, pp. 2102141 (Impact factor = 6.389)

- [J24] K. Payne\*, K. Xu\*, J. H. Choi, and J. K. Lee, “Mutiphysics analysis of plasma-based tunable absorber for high power microwave applications,” *IEEE Trans. Antennas Propag.*, *accepted for publication*. (Impact factor = 4.435)
- [J23] Y. Dong, Z. Wang, Y. Pan, and J. H. Choi, “Characterization of shorted dipole antennas for low cost RFID reader applications,” *IEEE Trans. Antennas Propag.*, vol. 68, no. 11, pp. 7297–7308, Nov. 2020. (Impact factor = 4.435)
- [J22] Z. Li, S. Scheers, L. An, A. Chivate, S. Khuje, K. Xu, Y. Hu, Y. Huang, S. Chang, K. Olenick, J. Olenick, J. H. Choi, C. Zhou, and S. Ren, “All-printed conformal high-temperature electronics on flexible ceramics,” *ACS Applied Electronic Materials*. vol. 2, no. 2, pp. 556–562, Jan. 2020. (Impact factor = not yet rated)
- [J21] A. Soleimani, A. Jafarholi, A. Jafarholi, J. H. Choi, and M. Veysi “Microstrip patch back radiation using metamaterial superstrate,” *IET Microw. Antenna Propag.* vol. 14, no. 2, pp. 158–164, Oct. 2019. (Impact factor = 2.036)
- [J20] K. Payne\*, K. Xu\*, J. H. Choi, and J. K. Lee, “Electrically tunable microwave absorber based on discrete plasma-shells,” *IEEE Trans. Antennas Propag.*, vol. 67, no. 10, pp. 6523–6531, Jul. 2019. (Impact factor = 4.435)
- [J19] H. Lobato-Morales, J. H. Choi, H. Lee, and J. Medina-Monroy, “Compact dielectric-permittivity sensors of liquid samples based on substrate-integrated-waveguide with negative-order-resonance,” *IEEE Sensors J.*, vol. 19, no. 19, pp. 8694–8699, Jun. 2019. (Impact factor = 3.076)
- [J18] A. Jafarholi, A. Jafarholi, and J. H. Choi, “Mutual coupling reduction in an array of patch antennas using capacitively loaded loop metamaterial superstrate for MIMO applications,” *IEEE Trans. Antenna Propag.*, vol. 67, no. 1, pp. 179–189, Jan. 2019. (Impact factor = 4.435)
- [J17] M. Enders\*, J. H. Choi, and J. K. Lee, “Integrated full hemisphere space-to-frequency mapping antenna with CRLH stripline feed network,” *IEEE Trans. Microw. Theory Tech.*, vol. 66, no. 11, pp. 4765–4772, Nov. 2018. (Impact factor = 3.756)
- [J16] K. Payne\*, K. Xu\*, and J. H. Choi, “Generalized synthesized technique for the design of thickness customizable high-order bandpass frequency selective surface,” *IEEE Trans. Microw. Theory Tech.*, vol. 66, no. 11, pp. 4783–4793, Nov. 2018. (Impact factor = 3.756)
- [J15] H. Lee, D. Ren\*, and J. H. Choi, “Dual-band and polarization-flexible CRLH substrate integrated waveguide resonant antenna,” *IEEE Antennas Wireless Propag. Lett.*, vol. 17, no. 8, pp. 1469–1472, Aug. 2018. (Impact factor = 3.510)
- [J14] K. Sun\*, S. Han<sup>†</sup>, J. H. Choi, and J. K. Lee, “Miniaturized active metamaterial resonant antenna with improved radiation performances based on negative-resistance-enhanced CRLH transmission lines,” *IEEE Antennas Wireless Propag. Lett.*, vol. 17, no. 7, pp. 1162–1165, May. 2018. (Impact factor = 3.510)
- [J13] H. Lee, D. Jung, D. Ren\*, and J. H. Choi, “L-section matching with notches and its application for composite low pass filter with spurious signal suppression,” *Electron. Lett.*, vol. 54, no. 10, pp. 636–638, May. 2018. (Impact factor = 1.343)
- [J12] K. Payne\*, K. Xu\*, J. H. Choi, and J. K. Lee, “Plasma enabled adaptive absorber for high power microwave applications,” *IEEE Trans. Plasma Sci.*, vol. 46, no. 4, pp. 934–942, Apr. 2018. (Selected as “*Highlight Paper*”) (Impact factor = 1.325)
- [J11] Y. Dong, J. Choi, and T. Itoh, “Vivaldi antenna with pattern diversity for 0.7 to 2.7 GHz cellular band applications,” *IEEE Antennas Wireless Propag. Lett.*, vol. 17, no. 2, pp. 247–250, Feb. 2018. (Impact factor = 3.510)

- [J10] D. Ren\*, J. H. Choi, and T. Itoh, "Series feed networks for dual-polarized frequency scanning phased array antenna based on composite right/left handed transmission line," *IEEE Trans. Microw. Theory Tech.*, vol. 65, no. 12, pp. 5133–5143, Dec. 2017. (*Impact factor = 3.756*)

*Prior to joining University at Buffalo*

- [J9] J. M. Kovitz, J. H. Choi, and Y. Rahmat-Samii, "Supporting wide-band circular polarization: CRLH networks for high-performance CP antenna arrays," *IEEE Micro. Mag.*, vol. 18, no. 5, pp. 91–104, Jun. 2017. (*Impact factor = 2.570*)
- [J8] Y. Dong, J. Choi, and T. Itoh, "Folded strip/slot antenna with extended bandwidth for WLAN application," *IEEE Antennas Wireless Propag. Lett.*, vol. 16, pp. 673–676, Aug. 2016. (*Impact factor = 3.510*)
- [J7] H. Lee, J. H. Choi, C. M. Wu, and T. Itoh, "A compact single radiator CRLH-inspired circularly polarized leaky-wave antenna based on substrate integrated waveguide," *IEEE Trans. Antenna Propag.*, vol. 63, no. 10, pp. 4566–4572, Oct. 2015. (*Impact factor = 4.435*)

*Prior to joining Syracuse University*

- [J6] J. H. Choi, P. W. C. Hon, and T. Itoh, "Dispersion analysis and design of planar electromagnetic bandgap ground plane for broadband common-mode suppression," *IEEE Microw. Wireless Compon. Lett.*, vol. 24, no. 11, pp. 772–774, Nov. 2014. (*Impact factor = 2.374*)
- [J5] C. M. Wu, J. H. Choi, H. Lee, and T. Itoh, "Magnetic-current-loop induced electric dipole antenna based on substrate integrated waveguide cavity," *IEEE Antennas Wireless Propag. Lett.*, vol. 13, pp. 519–522, Mar. 2014. (*Impact factor = 3.510*)
- [J4] J. H. Choi, Y. Dong, J. S. Sun, and T. Itoh, "Retrodirective array immune to incident waves with arbitrary polarization," *IEEE Trans. Antennas Propag.*, vol. 61, no. 12, pp. 6006–6013, Dec. 2013. (*Impact factor = 4.435*)
- [J3] J. H. Choi, J. S. Sun, and T. Itoh, "Frequency-scanning phased-array feed network based on composite right/left-handed transmission lines," *IEEE Trans. Microw. Theory Tech.*, vol. 61, no. 8, pp. 3148–3157, Aug. 2013. (*Impact factor = 3.756*)
- [J2] J. S. Sun, H. Lobato-Morales, J. H. Choi, A. Corona-Chavez, and T. Itoh, "Multistage directional filter based on band-reject filter with isolation improvement using composite right/left-handed transmission lines," *IEEE Trans. Microw. Theory Tech.*, vol. 60, no. 12, pp. 3950–3958, Dec. 2012. (*Impact factor = 3.756*)
- [J1] J. Choi and T. Itoh, "Dual-band composite right/left-handed (CRLH) phased-array antenna," *IEEE Antennas Wireless Propag. Lett.*, vol. 11, pp. 732–735, 2012. (*Impact factor = 3.510*)

NON-PEER REVIEWED JOURNAL PAPERS

- [NJ1] J. H. Choi, "Prof. Itoh's contributions to antennas," *IEEE Micro. Mag.*, vol. 19, no. 2, pp. 92–93, Mar. 2018.

PEER REVIEWED CONFERENCE PAPERS

(\* denotes graduate students, and † denotes undergraduate students, advised by J. Choi)

- [C50] J. Furgal\*, J. H. Choi, and J. Lee, "Bandwidth enhanced equal-split planar Knochel-Mayer power divider capable of high power handling for antenna feed applications," in *IEEE Antennas and Propagation Society International Symposium*, accepted for publication, Jul. 2022.
- [C49] K. Xu\*, Z. Li\*, and J. Choi, "A flexible liquid-metal-tuned absorber," in *IEEE Antennas and Propagation Society International Symposium*, accepted for publication, Jul. 2022.
- [C48] N. Chordas-Ewell\*, Z. Li\*, J. H. Choi, D. Ren, and R. Wu, "A W-band rectifier design based on GCPW," in *IEEE MTT-S International Microwave Symposium*, Jun. 2022.

- [C47] K. Xu\* and J. Choi, “Liquid-Metal-Tuned Patch Element for Flexible and Reconfigurable Reflectarrays/Intelligent Surfaces,” in *IEEE Antennas and Propagation Society International Symposium*, accepted for publication, Dec. 2021.
- [C46] J. Furgal\*, H. Lee, J. Choi, and J. Lee, “Multi-Band Array Using a Multiplexed Antenna Feed Composed of CRLH Transmission Line-Based Dual Band Isolation Circuits,” in *IEEE Antennas and Propagation Society International Symposium*, accepted for publication, Dec. 2021.
- [C45] K. Xu\*, N. Chordas-Ewell\*, Z. Li\*, and J. H. Choi, “Frequency scanning reflectarray based on composite right/left-handed transmission lines,” in *IEEE MTT-S International Microwave Symposium*, accepted for publication, Jun. 2021.
- [C44] Z. Li\*, N. Chordas-Ewell\*, J. H. Choi, D. Ren, R. Wu, Z. Qamar, N. Aboserwal, and J. L. Salazar-Cerreno, “Stripline-based W-band frequency scanning composite right/left-handed leaky-wave antenna with a tapered aperture for narrow bandwidth,” in *IEEE MTT-S International Microwave Symposium*, accepted for publication, Jun. 2021.
- [C43] A. Mitra, K. Xu\*, N. S. Babu, J. H. Choi, and J-B, Bong, “Liquid metal-based flexible band-stop frequency selective surface,” in *IEEE 34th International Conference on Micro Electro Mechanical Systems (MEMS)*, accepted for publication, Jan. 2021.
- [C42] Z. Li\*, K. Xu\*, N. Chordas-Ewell\*, D. Ren\*, J. H. Choi, and R. Wu, “Via-less waveguide-to-stripline transition using 2D electromagnetic bandgap structure,” in *European Microwave Conference*, accepted for publication, Jan. 2021.
- [C41] J. Furgal\*, K. Xu\*, J. H. Choi, and J. K. Lee, “Broadband equal-split planar 4-way power divider/combiner suitable for high power applications,” in *European Microwave Conference*, accepted for publication, Jan. 2021.
- [C40] N. Chordas-Ewell\*, K. Xu\*, R. Kadlimatti, A. T. Fam, and J. H. Choi, “Vibrating antenna Doppler radar,” in *European Microwave Conference*, accepted for publication, Jan. 2021.
- [C39] K. Xu\* and J. H. Choi, “Flexible liquid-metal-tuned higher-order bandpass frequency selective surfaces,” in *IEEE Asia Pacific Microwave Conference*, accepted for publication, Dec. 2020.
- [C38] K. Xu\*, J. H. Choi, K. Payne\*, J. Lee, and J-B Lee, “Flexible liquid metal frequency selective surface with tunable second-order bandpass response,” in *IEEE Antennas and Propagation Society International Symposium*, accepted for publication, Jul. 2020.
- [C37] D. Ren\*, Z. Li\*, J. H. Choi, and R. Wu “1D & 2D W-band frequency scanning metamaterial antenna and array,” in *IEEE Antennas and Propagation Society International Symposium*, accepted for publication, Jul. 2020.
- [C36] H. Lee, D. Jung, D. Ren\*, and J. H. Choi, “Frequency-tunable dual-band and polarization-flexible CRLH SIW resonant antenna,” in *IEEE Antennas and Propagation Society International Symposium*, accepted for publication, Jul. 2020.
- [C35] K. Payne\*, J. K. Lee, K. Xu\*, and J. H. Choi, “Higher order plasma-based tunable absorber using magneto-dielectric substrates,” in *IEEE Antennas and Propagation Society International Symposium*, Jul. 2019.
- [C34] K. Xu\*, N. Chordas-Ewell\*, and J. H. Choi, “Planar vertically polarized quasi-yagi antennas using magnetic current loops,” in *IEEE Antennas and Propagation Society International Symposium*, Jul. 2019.
- [C33] K. Xu\*, D. Koshen<sup>†</sup>, M. Abdirash<sup>†</sup>, and J. H. Choi, “A retrodirective microwave barcode,” in *IEEE MTT-S International Microwave Symposium*, Jun. 2019.

- [C32] D. Ren\* and J. H. Choi, "Full-sphere frequency scanning array antenna based on passive dual-band CRLH series integrated feeding network," in *IEEE MTT-S International Microwave Symposium*, Jun. 2019.
- [C31] K. Payne\*, J. K. Lee, K. Xu\*, and J. Choi, "Compact third-order bandpass frequency selective surface with wide spurious-suppression bandwidth," in *IEEE Antennas and Propagation Society International Symposium*, Jul. 2018.
- [C30] K. Payne\*, J. K. Lee, K. Xu\*, and J. Choi, "Low-profile plasma-based tunable absorber," in *IEEE Antennas and Propagation Society International Symposium*, Jul. 2018.
- [C29] D. Ren\*, K. Xu\*, and J. Choi, "Tunable active leaky wave antenna based on bidirectional amplifier enhanced composite right/left handed transmission line," in *IEEE MTT-S International Microwave Symposium*, Jun. 2018.

*Prior to joining University at Buffalo*

- [C28] K. Payne\*, J. Choi, E. Peters, D. Wedding, and C. Wedding, "Plasma-tunable electronic protection for high-power microwave applications," in *IEEE Antennas and Propagation Society International Symposium*, Jul. 2017.
- [C27] K. Payne\*, J. Choi, and T. Jang, "Ultra-low profile tri-polarized antenna for WLAN/MIMO application," in *IEEE Antennas and Propagation Society International Symposium*, Jul. 2017.
- [C26] T. Jang, K. Payne\*, and J. Choi, "Half-mode hexagonal substrate integrated waveguide (SIW) structure and its application," in *IEEE MTT-S International Microwave Symposium*, Jun. 2017.
- [C25] D. Ren\*, J. Choi, and T. Itoh, "Dual-polarized frequency-scanning phased-array antenna based on composite right/left handed serial feed network," in *IEEE MTT-S International Microwave Symposium*, Jun. 2017.
- [C24] D. Ren\*, J. Choi, and T. Itoh, "Dual-polarized directivity enhanced active metamaterial antenna for polarimetric radar applications," in *IEEE International Conference on Microwaves for Intelligent Mobility*, Mar. 2017.
- [C23] K. Payne\* and J. Choi, "Development of dual-band/dual-polarized metamaterial antenna in an electrically-small form factor for efficient wireless data and power transfer," in *IEEE Conference on Antenna Measurement and Applications*, Oct. 2016.
- [C22] D. Ren\* and J. Choi, "Compact substrate integrated waveguide based active and passive circularly polarized composite right/left-handed leaky wave antennas," in *IEEE Conference on Antenna Measurement and Applications*, Oct. 2016.
- [C21] K. Payne\*, E. Peters, D. Wedding, J. Brunett, and J. Choi, "Second-order plasma enabled tunable low-profile frequency selective surface based on coupling-interlayer," in *European Microwave Conference*, Oct. 2016.
- [C20] M. Enders\* and J. Choi, "3D space-to-microwave frequency mapping antenna," in *IEEE Antennas and Propagation Society International Symposium*, Jun. 2016.
- [C19] K. Payne\* and J. Choi, "Third-order frequency selective surface based on inverter interlayers," in *IEEE Antennas and Propagation Society International Symposium*, Jun. 2016.
- [C18] K. Sun\*, J. Lee, and J. Choi, "Miniaturized quasi-yagi antenna based on metaedge reflector," in *IEEE Antennas and Propagation Society International Symposium*, Jun. 2016.
- [C17] K. Payne\*, J. Choi, M. Ali, and C. M. Wu, "Highly-selective miniaturized first-order low-profile dual-band frequency selective surface," in *IEEE Antennas and Propagation Society International Symposium*, Jun. 2016.
- [C16] K. Sun\*, J. Lee, and J. Choi, "High directivity negative-resistance composite right/left-handed leaky-wave antenna," in *IEEE MTT-S International Microwave Symposium*, May. 2016.

- [C15] M. Enders\*, and J. Choi, “A series feed network based on a distributed CRLH stripline for frequency scanning applications,” in *IEEE MTT-S International Microwave Symposium*, May. 2016.
- [C14] D. Ren\*, H. Lee, and J. Choi, “Bi-directional active and passive meandered circular polarized CRLH-inspired leaky-wave antenna based on substrate integrated waveguide,” in *IEEE MTT-S International Microwave Symposium*, May. 2016.

*Prior to joining Syracuse University*

- [C13] H. Lee, J. H. Choi, and T. Itoh, “Active diplexer based on isolation circuits imbedded low noise amplifiers,” in *European Microwave Conference*, Sep., 2015.
- [C12] J. M. Kovitz, Y. Rahmat-Samii, and J. Choi, “Dispersion engineering right/left-handed transmission lines enabling near-octave bandwidths for wideband CP patch antennas,” in *IEEE Antennas and Propagation Society International Symposium*, Jul., 2015. (*Student Paper Competition Finalist – 2nd Place Award*)
- [C11] J. H. Choi, C. M. Wu, H. Lee, and T. Itoh, “Vialess composite right/left-handed stripline and its applications for broadband 3-dB and tunable couplers,” in *European Microwave Conference*, Oct. 2014.
- [C10] H. Lee, J. H. Choi, Y. Kasahara, and T. Itoh, “A circularly polarized single radiator leaky-wave antenna based on CRLH-inspired substrate integrated waveguide,” in *IEEE MTT-S International Microwave Symposium*, Jun. 2014. (*Student Paper Competition Finalist*)
- [C9] M. Duran-Sindreu, J. Choi, J. Bonache, F. Martin, and T. Itoh, “Dual-band leaky wave antenna with filtering capability based on extended-composite right/left-handed transmission lines,” in *IEEE MTT-S International Microwave Symposium*, Jun. 2013.
- [C8] J. S. Sun, A. Corona-Chavez, J. Choi, and T. Itoh, “Compact 4-pole BRF-based directional filter with even-mode matching circuits for sharp cut-off,” in *IEEE MTT-S International Microwave Symposium*, Jun. 2013.
- [C7] J. Choi, J. S. Sun, and T. Itoh, “An alternative technique in designing a low-profile two-pole bandpass frequency selective surface (FSS) using aperture coupling interlayer,” in *IEEE MTT-S International Microwave Symposium*, Jun. 2013.
- [C6] C. M. Wu, J. Choi, S. Kawasaki, and T. Itoh, “A novel miniaturized polarization orthogonalizing active retrodirective antenna array for satellite use,” in *IEEE MTT-S International Microwave Symposium*, Jun. 2013.
- [C5] J. Choi, Y. Dong, and T. Itoh, “Composite right/left-handed (CRLH) phased-array feed network for frequency scanning antenna,” in *European Microwave Conference*, Oct. 2012.
- [C4] J. Choi, Y. Dong, J. Sun, and T. Itoh, “Polarization friendly retrodirective antenna array,” in *IEEE MTT-S International Microwave Symposium*, Jun. 2012. (*Student Paper Competition Finalist – Honorable Mention Award*)
- [C3] J. Choi, G. Youssef, S. Breugnot, V. Gupta, and T. Itoh, “Microwave interferometer for shock wave induced displacement measurement,” in *Review of Progress in QNDE, AIP Conference Proceeding*, 2011.
- [C2] J. Choi, S. Breugnot, and T. Itoh, “Microwave interferometer for non-destructive testing,” in *Review of Progress in QNDE, AIP Conference Proceeding*, 2010.
- [C1] J. Choi and T. Itoh, “60-GHz leaky-wave antenna on polyimide substrate,” *8th MINT International Millimeter-Wave Symposium*, 2007.

NON-PEER REVIEWED CONFERENCE PAPERS

(\* denotes graduate students advised by J. Choi)

- [NC1] K. Payne\*, E. Peters, D. Wedding, and J. Choi, “Novel electromagnetic radiation protection systems using contained plasma,” in *15th DoD Electromagnetic Window Symposium*, May. 2016.