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EDUCATION

Duke University	2003	Ph. D. in Physics
Duke University	1998	M. A. in Physics
University of North Carolina at Greensboro	1996	B. S. in Physics

PROFESSIONAL EXPERIENCE

2025-present	Assistant Professor, ECE Dept., U. of Alabama-Huntsville
2019-2025	Research Physicist, U.S. Army DEVCOM Aviation & Missile Center, Redstone Arsenal, AL
2023-2024	Part-Time Faculty, ECE Dept., U. of Alabama-Huntsville
2005-2019	Research Physicist, U.S. Army AMRDEC, Redstone Arsenal, AL
2011-2015	Adjunct Assistant Professor of Physics, U. of Alabama-Huntsville
2003-2005	NRC Post-doctoral Research Associate, U.S. Army AMRDEC, Redstone Arsenal, AL
2003	Applied Mathematician (consultant), BD Technologies, Durham, NC
1997-2003	Research Assistant, Duke University Graduate Advisor: Prof. Daniel J. Gauthier Thesis title: Experimental control of a fast chaotic time-delay opto-electronic device
1996-1998	Teaching Assistant, Duke University
1996	Research Assistant, Biophysics Lab, University of North Carolina at Greensboro
1995-1996	Undergraduate Research Assistant, University of North Carolina at Greensboro Advisor: Prof. Fereidoon Sadri

PATENTS

1. N. J. Corron and J. N. Blakely, “Actively Stabilized Random Number Generator”, U. S. Patent No. 12,086,570 (2024).

2. J. N. Blakely, “Secure Cryptographic System for Datalinks”, U. S. Patent No. 11,606,194 (2023).

COURSES TAUGHT

1. Quantum Optical Communications, EE 610-01, Univ. of Alabama at Huntsville, Summer 2023, Summer 2024.

2. Chaos and Complexity, PH 489/689, Univ. of Alabama at Huntsville, Spring 2012.

MEMBERSHIPS

American Physical Society (APS)
APS Division of Quantum Information
Southeastern Section of the American Physical Society

Institute of Electrical and Electronics Engineers (IEEE)
Phi Beta Kappa

PUBLICATION LIST (85 Total Scholarly Works)

Peer-Reviewed Journal Articles

1. M. Tseng, N. J. Corron, J. N. Blakely, and A. N. Beal, “Compensating for Imperfections in Solvable Chaotic Oscillators,” in review, *Chaos*, 2025.

2. J. N. Blakely, S. D. Pethel, K. R. Stewart, and K. Jacobs, “Revealing spoofing of quantum illumination using entanglement,” in review, *Physical Review Applied*, arXiv preprint arXiv:2410.08353, 2025.

3. C. S. Pappu, A. N. Beal, J. N. Blakely, and N. J. Corron, “Analytic range-Doppler ambiguities for nonautonomous solvable chaos,” *Chaos, Solitons, & Fractals*, vol. 197, p. 116434, 2025.

4. J. N. Blakely, S. D. Pethel, and K. Jacobs, “Revealing spoofing of classical radar using quantum noise,” *Physical Review Research*, vol. 6, p. 013179, 2024.

5. N. F. Allard, J. Kielkopf, K. Myneni, and J. N. Blakely. "New theoretical study of potassium perturbed by He and comparison to laboratory spectra," *Astronomy and Astrophysics*, vol. 683, p. A188, 2024.

6. J. N. Blakely, M. S. Milosavljevic, N. J. Corron, S. D. Cohen, and C. Fendley, "Chaos in Optimal Communications: Theory and Experiment," *J. Vibration Testing & System Dynamics*, vol. 8, pp. 309-316, 2024.

7. N. F. Allard, K. Myneni, J. N. Blakely, and G. Guillon. "Temperature and density dependence of line profiles of sodium perturbed by helium." *Astronomy and Astrophysics*, vol. 674 p. A171, 2023.

8. J. N. Blakely and S. D. Pethel, "Quantum Limits to Classically Spoofing an Electromagnetic Signal," *Physical Review Research*, vol. 4, p. 023178, 2022.

9. J. N. Blakely, "Quantum Illumination with a Parametrically Amplified Idler," *Physics Letters A*, vol. 400, p. 127319, 2021.

10. J. N. Blakely, "Bounds on Probability of Detection Error in Quantum-Enhanced Noise Radar," *Quantum Reports*, vol. 2, pp. 400-413, 2020.

11. M. S. Milosavljevic, N. J. Corron, and J. N. Blakely "Optimal communications with infinite impulse response matched filters," *Chaos, Solitons & Fractals*, vol. 138, p. 109822, 2020.

12. N. J. Corron, S. D. Cohen, A. N. Beal, and J. N. Blakely, "Exact analytic solution for a chaotic hybrid dynamical system and its electronic realization," *Chaos*, vol. 60, p. 073112, 2020.

13. J. N. Blakely, M. S. Milosavljevic, and N. J. Corron, "Analytic Solution for a Complex Network of Chaotic Oscillators," *Entropy*, vol. 20, p. 468, 2018.

14. A. N. Beal, J. N. Blakely, and N. J. Corron, "Extended-Bandwidth Negative Impedance Converters by Nested Networks," *IEEE Trans. Circuits & Systems*, vol. 65, pp. 1134-1138, 2018.

15. M. S. Milosavljevic, J. N. Blakely, A. N. Beal, and N. J. Corron, "Analytic Solutions Throughout a Period Doubling Route to Chaos," *Physical Review E*, vol. 95, p. 062223, 2017.

16. J. N. Blakely, M. S. Milosavljevic, and N. J. Corron, "Timing Variation in an Analytically Solvable Chaotic System," *Physica D*, vol. 340, pp. 40-45, 2017.

17. N. J. Corron, R. M. Cooper, and J. N. Blakely, "Entropy Rates of Low-Significance Bits Sampled from Chaotic Physical Systems," *Physica D*, vol. 332, pp. 34-40, 2016.

18. N. J. Corron, R. M. Cooper, and J. N. Blakely, "Analytically Solvable Chaotic Oscillator Based on a First-Order Filter," *Chaos*, vol. 26, p. 023104, 2016.

19. J. N. Blakely, R. M. Cooper, and N. J. Corron, "Regularly timed events amid chaos," *Physical Review E*, vol. 92, p. 052904, 2015.

20. N. J. Corron and J. N. Blakely, “Chaos in Optimal Communication Waveforms,” *Proc. R. Soc. A*, vol. 471, p. 20150222, 2015.

21. J. N. Blakely and N. J. Corron, “Ambiguity Functions for Waveforms of a Solvable Chaotic Oscillator,” *Signal Processing*, vol. 104, pp. 136-142, 2014.

22. D. W. Hahs, N. J. Corron, and J. N. Blakely, “Synthesizing antipodal chaotic waveforms,” *J. Franklin Institute*, vol. 351, pp. 2562-2573, 2014.

23. J. N. Blakely, D. W. Hahs, and N. J. Corron, “Communication Waveform Properties of an Exact Folded-band Chaotic Oscillator,” *Physica D*, vol. 263, pp. 99-106, 2013.

24. J. N. Blakely and N. J. Corron, “Correlation Properties of Exactly Solvable Chaotic Systems,” *Physical Review E*, vol. 88, p. 022909, 2013.

25. B. A. M. Owens, M. T. Stahl, N. J. Corron, J. N. Blakely, and L. Illing, “Exactly Solvable Chaos in an Electromechanical Oscillator,” *Chaos*, vol. 23, p. 033109, 2013.

26. N. J. Corron, J. N. Blakely, and M. T. Stahl, “Acoustic Detection and Ranging Using Solvable Chaos,” *Chaos*, vol. 23, p. 023119, 2013.

27. N. J. Corron and J. N. Blakely, “Controlling Symbolic Dynamics in an Exact Folded-Band Chaotic Oscillator,” *Analysis and Control of Chaotic Systems*, vol. 3, pp. 143-148, 2012.

28. N. J. Corron and J. N. Blakely, “Exact Folded-Band Chaotic Oscillator,” *Chaos*, vol. 22, p. 023113, 2012.

29. N. J. Corron, J. N. Blakely, and M. T. Stahl, “Erratum: ‘A matched filter for chaos’,” *Chaos*, vol. 22, p. 029901, 2012.

30. S. D. Pethel and J. N. Blakely, “Paucity of Attractors in Nonlinear Systems Driven with Complex Signals,” *Physical Review E*, vol. 83, pp. 046205, 2011.

31. N. J. Corron, J. N. Blakely, and M. T. Stahl, “A Matched Filter for Chaos,” *Chaos*, vol. 20, p. 023123, 2010.

32. N. J. Corron, B. R. Reed, J. N. Blakely, K. Myneni, and S. D. Pethel, “Chaotic Scrambling for Wireless Analog Video,” *Communications in Nonlinear Science and Numerical Simulations*, vol. 15, pp. 2504-2513, 2010.

33. J. N. Blakely, M. T. Stahl, and N. J. Corron, “Time-Shifted Synchronization of Chaotic Oscillator Chains without Explicit Coupling Delays,” *Chaos*, vol. 19, p. 043117, 2009.

34. J. N. Blakely, and N. J. Corron, “Time Shifting Chaotic Signals Using Synchronization,” *European Physical Journal - Special Topics*, vol. 165, pp. 111-117, 2008.

35. N. J. Corron, J. N. Blakely, S. T. Hayes, and S. D. Pethel, "Determinism in Synthesized Chaotic Waveforms," *Physical Review E*, vol. 77, p. 037201, 2008.

36. J. N. Blakely, M. W. Pruitt, and N. J. Corron, "Time Shifts and Correlations in Synchronized Chaos," *Chaos*, vol. 18, p. 013117, 2008.

37. J. N. Blakely, M. B. Eskridge, and N. J. Corron, "A Simple Lorenz Circuit and Its Radio Frequency Implementation," *Chaos*, vol. 17, p. 023112, 2007.

38. N. J. Corron, S. T. Hayes, S. D. Pethel, and J. N. Blakely, "Synthesizing Folded Band Chaos," *Physical Review E*, vol. 75, p. 045201(R), 2007.

39. N. J. Corron, S. T. Hayes, S. D. Pethel, and J. N. Blakely, "Chaos without Nonlinear Dynamics," *Physical Review Letters,* vol. 97, p. 024101, 2006.

40. J. N. Blakely, J. D. Holder, N. J. Corron, and S. D. Pethel, "Simply Folded Band Chaos with 175 MHz Center Frequency", *Physics Letters A*, vol. 346, p. 111-114, 2005.

41. J. N. Blakely, N. J. Corron, and S. D. Pethel, "Equivalence of the Continuum Limit of the Generalized Rössler System and the Chaotic Transmission Line Oscillator," *Physica D*, vol. 207, pp. 161-170, 2005.

42. N. J. Corron, J. N. Blakely, and S. D. Pethel, "Lag and Anticipating Synchronization without Time-Delay Coupling", *Chaos*, vol. 15, p. 023110, 2005.

43. J. N. Blakely and N. J. Corron, "Experimental Observation of Delay-Induced RF Chaos in a Transmission Line Oscillator," *Chaos*, vol. 14, pp. 1035-1041, 2004.

44. J. N. Blakely, L. Illing, and D. J. Gauthier, "Controlling Fast Chaos in Delay Dynamical Systems," *Physical Review Letters*, vol. 92, p. 193901, 2004.

45. J. N. Blakely, L. Illing, and D. J. Gauthier, "High-Speed Chaos in an Optical Feedback System with Flexible Timescales," *IEEE Journal of Quantum Electronics*, vol. 40, pp. 299-305, 2004.

46. J. N. Blakely, D. J. Gauthier, G. Johnson, T. L. Carroll, and L. M. Pecora, "Experimental Investigation of High-Quality Synchronization of Coupled Oscillators," *Chaos*, vol. 10, pp. 738-744, 2000.

47. J. N. Blakely and D. J. Gauthier, "Attractor Bubbling in Coupled Hyperchaotic Oscillators," *International Journal of Bifurcation and Chaos*, vol. 10(4), pp. 853-847, 2000.

Book Chapters

48. J. N. Blakely, N. J. Corron, A. N. Beal, and M. S. Milosavljevic, "Chaos in Optimal Signals for Radar and Communications," in *Nonlinear Systems: Design, Applications, and Analysis*, C. Volos, Ed., Nova Science Publishers, New York, pp. 395-448, 2017.

49. J. N. Blakely, N. J. Corron, S. D. Pethel, M. T. Stahl, and J. Gao, "Non-autonomous Boolean chaos in a driven ring oscillator," in *New Research Trends in Nonlinear Circuits: Design, Chaotic Phenomena and Applications*, I. Kyprianidis, I. Stouboulos and C. Volos, Eds., Nova Science Publishers, New York, pp. 153-168, 2014.

50. N. J. Corron, J. N. Blakely, S. D. Pethel, "Communicating with Exactly Solvable Chaos," in *Chaotic Signal Processing*, H. Leung, Ed., SIAM, Philadelphia, Pennsylvania, pp. 49-84, 2013.

51. J. N. Blakely and N. J. Corron, "Matched Filters for Chaotic Signals," in *Chaotic Signals in Digital Communications*, M. Eisencraft, R. Attux, R. Suyama, Eds., CRC Press, pp. 215-238, 2013.

52. L. Illing, D. J. Gauthier, and J. N. Blakely, "Controlling fast chaos in opto-electronic delay dynamical systems," in *Handbook of Chaos Control, 2nd ed.*, E. Scholl, H. G. Schuster, Eds., Wiley-VCH, Ch. 19, pp. 407-425, 2007.

53. J. N. Blakely, "Chaos Synchronization with Mismatch-Induced Lag or Anticipation," in *Nonlinear Phenomena Research Perspectives*, C. W. Wang, Ed., Nova Science Publishers, New York, pp. 83-102, 2007.

Peer-Reviewed Conference Proceedings

54. J. N. Blakely, "Quantum-Correlated Noise Radar with Phase-Sensitive Amplification," *2021 IEEE Radar Conference (RadarConf21)*, pp. 1-6, 2021.

55. A. N. Beal, J. N. Blakely, and N. J. Corron, "Driven Ring Oscillators as FPGA Entropy Sources," *Proc. IEEE SoutheastCon*, Huntsville, AL, April 13, pp. 1-6, 2019.

56. A. N. Beal, and J. N. Blakely, "Szilard's information engine: Recent progress and a chaotic analog," *IMAPS 14th International Conference and Exhibition of Device Packaging*, Fountain Hills, AZ, March 6-8, 2018.

57. M. S. Milosavljevic, N. J. Corron, and J. N. Blakely, "A Solvable Chaotic Oscillator with Multiple Set Points," *Proc. 4th International Conference on Applications in Nonlinear Dynamics (ICAND 2016)*, Eds. V. In, P. Longhini, and A. Palacios, Springer International Publishing, pp. 33-40, 2017.

58. N. J. Corron, and J. N. Blakely, "Nonlinear Dynamics from Infinite Impulse Response Matched Filters," *Proc. 4th International Conference on Applications in Nonlinear Dynamics (ICAND 2016)*, Eds. V. In, P. Longhini, and A. Palacios, Springer International Publishing, pp. 151-160, 2017.

59. A. N. Beal, J. N. Blakely, N. J. Corron, and R. N. Dean, "High frequency oscillators for chaotic radar," *Proc. SPIE*, vol. 9829, p. 98290H, 2016.

60. N. J. Corron, M. T. Stahl, J. N. Blakely, and S. D. Pethel, "Acoustic Detection and Ranging Using Solvable Chaos," *International Conference on Applications in Nonlinear Dynamics (ICAND 2012)*, Eds. V. In, A. Palacios, and P. Longhini, Springer International Publishing, pp. 213-223, 2014.

61. N. J. Corron, M. T. Stahl, and J. N. Blakely, "Demonstration of Detection and Ranging Using Solvable Chaos," *Proc. SPIE*, vol. 8714, p. 871406, 2013.

62. N. J. Corron, M. T. Stahl, and J. N. Blakely, "Experimental Ranging System Using Exactly Solvable Chaos," *Proc. of 2012 International Symposium on Nonlinear Theory and its Applications (NOLTA 2011)*, pp. 454-457, 2012.

63. N. J. Corron and J. N. Blakely, "Controlling Symbolic Dynamics in an Exact Folded-Band Chaotic Oscillator," *Proc. 3rd International Federation of Automatic Control Conference on Analysis and Control of Chaotic Systems*, pp. 19-24, 2012.

64. N. J. Corron and J. N. Blakely, "Chaos for Communication and Radar," *Proceedings of 2011 International Symposium on Nonlinear Theory and its Applications (NOLTA 2011)*, (2011).

65. J. N. Blakely and N. J. Corron, "Concept for Low-Cost Chaos Radar using Coherent Reception," *Proc. SPIE*, vol. 8021, p. 80211H, 2011.

66. N. J. Corron and J. N. Blakely, "A Matched Filter for Communicating with Chaos," *AIP Conference Proceedings*, vol. 1339, pp. 25-35, 2011.

67. N. J. Corron, M. T. Stahl, and J. N. Blakely, "An Exactly Solvable Chaotic Oscillator," *Proc. 18th International Workshop on Nonlinear Dynamics (NDES 2010)*, pp. 142-145, 2010.

68. S. D. Pethel and J. N. Blakely, "Paucity of Attractors in Nonlinear Systems Driven with Noisy Signals," contributed to *27th Army Science Conference*, 2010.

69. N. J. Corron, J. N. Blakely, and M. T. Stahl, "A Matched Filter for Communicating with Chaos," contributed to *27th Army Science Conference*, 2010.

70. N. J. Corron, M. T. Stahl, and J. N. Blakely, "Exactly Solvable Chaotic Circuit," *Proc. IEEE International Symposium on Circuits and Systems 2010 (ISCAS 2010)*, pp. 1356-1359, 2010.

71. J. N. Blakely, B. R. Reed, N. J. Corron, M. T. Stahl, and K. Myneni, "Demonstration of Shifter-less Beam Steering in an Ultra-Wide Bandwidth Array Antenna using Synchronized Chaos," *Proc. SPIE*, vol. 7669, p. 76690Q, 2010.

72. N. J. Corron, B. R. Reed, J. N. Blakely, K. Myneni, and S. D. Pethel, "Chaotic Scrambling for Wireless Analog Video," *Proceedings of IEEE SoutheastCon 2009*, Atlanta, Georgia, March 6-8, 2009, pp. 38-43, 2009.

73. J. N. Blakely, M. B. Eskridge, and N. J. Corron, "High-Frequency Chaotic Lorenz Circuit," *Proceedings of IEEE SoutheastCon 2008*, Huntsville, Alabama, April 3-6, 2008, pp. 69-74, 2008.

74. N. J. Corron, B. Reed, J. N. Blakely, K. Myneni, and S. D. Pethel, "Chaotic Scrambling for Wireless Analog Video," contributed to *26th Army Science Conference*, DTIC Accession No. ADA503411, 2008.

75. J. N. Blakely and N. J. Corron, "Time Shifting Chaotic Signals Using Synchronization," contributed to *26th Army Science Conference*, DTIC Accession No. ADA505972, 2008.

76. J. N. Blakely, M. W. Pruitt, and N. J. Corron, "Time Shifts and Correlations in Synchronized Chaos," *Proceedings of 2007 International Symposium on Nonlinear Theory and its Applications (NOLTA 2007)*, Vancouver, Canada, September 16-19, 2007, pp. 228-231, 2007.

77. N. J. Corron, S. T. Hayes, S. D. Pethel, and J. N. Blakely, "Reverse-Time Chaos from a Randomly Driven Filter," *Proceedings of IEEE International Symposium on Circuits and Systems 2007 (ISCAS 2007)*, New Orleans, Louisiana, May 27-30, 2007, pp. 205-208, 2007.

78. N. J. Corron, S. T. Hayes, S. D. Pethel, and J. N. Blakely, "Generating Chaos with a Linear Filter," *Proceedings of 2006 International Symposium on Nonlinear Theory and its Applications (NOLTA 2006)*, Bologna, Italy, September 11-14, 2006, pp. 1047-1050, 2006.

79. N. J. Corron and J. N. Blakely, "Multiplexing Communication with Chaos," *Proceedings of 1st International Federation of Automatic Control Conference on Analysis and Control of Chaotic Systems*, 2006.

80. N. J. Corron, S. T. Hayes, S. D. Pethel, and J. N. Blakely, "Chaos without Nonlinear Dynamics," contributed to *25th Army Science Conference*, DTIC Accession No. ADA481946, 2006.

81. J. N. Blakely and N. J. Corron, "Multiplexing Symbolic Dynamics-Based Chaos Communications Using Synchronization," *Journal of Physics: Conference Series*, vol. 23, p. 259-266, 2005.

82. L. Illing, J. N. Blakely, and D. J. Gauthier, "Time-delay Systems with Band-limited Feedback," *Proceedings of the ENOC-2005 Fifth EUROMECH Nonlinear Dynamics Conference*, ISBN 90 386 2667 3, Eindhoven, Netherlands, August 7-12, 2005, D. Van Campen, M. Lazurko, W. Van Der Oever, eds., pp. 1115-1123, 2005.

83. J. N. Blakely and N. J. Corron, "Ultra-Wideband Waveform Generation Using a Novel Nonlinear RF Oscillator," contributed to *24th Army Science Conference*, DTIC Accession No. ADA433493, 2004.

84. N. J. Corron, J. N. Blakely, and S. D. Pethel, "Beam Steering by Lag Synchronization in Ultra-Wide Bandwidth, Chaotic Arrays," contributed to *24th Army Science Conference*, DTIC Accession No. ADA433165, 2004.

85. N. J. Corron, J. N. Blakely, and S. D. Pethel, "Beam Steering by Lag Synchronization in Wide-Bandwidth, Chaotic Arrays," *AIP Conference Proceedings*, vol. 742, pp. 45-50, 2004.

PRESENTATIONS

* denotes invited presentation

1. "Quantum Resources for Detecting Spoofing of an Electromagnetic Signal," 28th Annual Quantum Information Processing Conference, Raleigh, North Carolina, 25 February 2025.

2. *"Chaos in Optimal Communication Waveforms," 2022 Conference on Nonlinear Science and Complexity, Thessaloniki, Greece, 28 September 2022.

3. "Quantum Limits to Classically Spoofing an Electromagnetic Signal," Inaugural Hybrid DoD Basic Research Conference, Arlington, Virginia, 8 September 2022.

4. *"Quantum-Correlated Noise Radar with Phase-Sensitive Amplification," 2021 IEEE Radar Conference (RadarConf21), Atlanta, Georgia, 11 May 2021.

5. *"Quantum Limits on Target Detection… And How to Get Around Them," UAH Seminar on Antennas/Applied Electromagnetics, Huntsville, Alabama, 24 Jan 2020.

6. *"Quantum Radar: A Sampling of the Literature," Georgia State University, Atlanta, Georgia, 3 Apr 2019.

7. *"Quantum Radar: A Sampling of the Literature," UAH Seminar on Antennas/Applied Electromagnetics, Huntsville, Alabama, 1 Feb 2019.

8. *"Chaotic Systems with Analytic Solutions," Department of Mathematics Colloquium, Alabama A&M University, Huntsville, Alabama, 2 March, 2017.

9. *"Chaotic Systems with Analytic Solutions," Department of Physics Colloquium, University of Alabama at Huntsville, Huntsville, Alabama, 18 February, 2014.

10. "Correlation Properties of Solvable Chaotic Oscillators," Jonathan N. Blakely, Dynamics Days 2014, Atlanta, Georgia, 3 Jan 2014.

11. "Non-autonomous Boolean chaos in a Driven Ring Oscillator," *36th Annual SIAM Southeastern Atlantic Section Conference*, Huntsville, Alabama, 24 March 2012.

12. * "Boolean Chaos," Physics Department Colloquium, University of Alabama at Huntsville, Huntsville, Alabama, 25 October 2011.

13. * "Concept for Low-Cost Chaos Radar using Coherent Reception," *SPIE Defense, Security, and Sensing 2011*, Orlando, Florida, 27 April 2011.

14. * "Demonstration of Shifter-less Beam Steering in an Ultra-Wide Bandwidth Array Antenna using Synchronized Chaos," *SPIE Defense, Security, and Sensing 2010*, Orlando, Florida, 6 April 2010.

15. "A Matched Filter for Chaos," *76th Annual Meeting of the Southeastern Section of the American Physical Society*, Atlanta, Georgia, 12 November 2009.

16. * "Chaotic Scrambling for Analog Wireless Video," University of Alabama at Huntsville, Huntsville, Alabama, 8 April 2009.

17. "Time-Shifted Synchronization of Chaotic Oscillator Chains without Explicit Coupling Delays," *2009 American Physical Society March Meeting*, Pittsburgh, Pennsylvania, 20 March 2009.

18. "Chaotic Scrambling for Wireless Analog Video," *IEEE SoutheastCon 2008*, Atlanta Georgia, 6 March 2009.

19. * "Time Shifting Chaotic Signals Using Synchronization," *Fifth World Congress of Nonlinear Analysts*, Orlando, Florida, 7 July 2008.

20. "Time Shifts and Correlations in Synchronized Chaos," *2008 American Physical Society March Meeting*, New Orleans, Louisiana, 14 March 2008.

21. "Time Shifts and Correlations in Synchronized Chaos," *Dynamics Days 2008*, Knoxville, Tennessee, 5 January 2008.

22. "Chaos Without Nonlinear Dynamics," *74th Annual Meeting of the Southeastern Section of the American Physical Society*, Nashville, Tennessee, 10 November 2007.

23. * "Time Shifts and Correlations in Synchronized Chaos," *2007 International Symposium on Nonlinear Theory and its Applications (NOLTA '07)*, Vancouver, Canada, 18 September 2007.

24. "Synthesizing Chaos," *2007 American Physical Society March Meeting*, Denver, Colorado, 7 March 2007.

25. "Chaotic Transmission Line Oscillators for Generating CW, Ultra-Wideband Waveforms," *2006 IEEE Antennas and Propagation Society International Symposium with USNC/URSI Radio Science and AMEREM Meetings*, Albuquerque, New Mexico, 14 July 2006.

26. "Chaos from a Randomly Driven RLC Filter," *9th Experimental Chaos Conference*, São Jose dos Campos, Brazil, 29 May 2006.

27. "Optimal Chain Length for Long-Term Anticipation of Chaotic Dynamics," *Dynamics Days 2006*, Bethesda, Maryland, 6 January 2006.

28. "Multiplexing Symbolic Dynamics-based Chaos Communications Using Synchronization," *International Conference on Control and Synchronization of Dynamical Systems*, Leon, Mexico, 6 October 2005.

29. * "Chaotic Waveform Technology for Ranging and Communications," Institute for Scientific Research, Fairmont, West Virginia, 19 July 2005.

30. "Multimode Dynamics of a Transmission Line Oscillator", SIAM Conference on Applications of Dynamical Systems, May 23, 2005, Snowbird, UT.

31. "Generalized Rössler Dynamics of Transmission Line Oscillators," *Dynamics Days 2005*, Long Beach, California, 8 January 2005.

32. "Band-limited Chaos in a Simple RF Delay-line Circuit," *Dynamics Days 2004*, Chapel Hill, North Carolina, 4 January 2004.

33. * "Controlling Fast Chaos," Intelligent Automation Inc., Rockville, Maryland, 27 June 2003.

34. * "Controlling Chaos in a Fast Time-Delay Opto-Electronic Device", Weapons Sciences Directorate, US Army Aviation and Missile Command, Redstone Arsenal, June 19, 2003, Huntsville, AL.

35. "Controlling Fast Chaos," *Third Annual Symposium of the Fitzpatrick Center for Photonics and Communications Systems*, Durham, North Carolina, 27 May 2003.

36. * "Controlling Chaos in a Fast Opto-Electronic Device," MCNC, Research Triangle Park, North Carolina, 4 April 2003.

37. "A Novel Approach to Controlling Fast Chaotic Optical Systems," *Second Annual Symposium of the Fitzpatrick Center for Photonics and Communications Systems*, Durham, North Carolina, 28 May 2002.

38. "Flexible Source of Optical Chaos for Use in Communications", OPTO-Southeast Meeting on Optoelectronics, Dynamics Days 2001, Chapel Hill, North Carolina, 4 January 2001.

39. "Flexible Source of Optical Chaos for Use in Communications", OPTO-Southeast Meeting on Optoelectronics, Photonics, and Imaging, Charlotte, NC, September 19, 2000.

40. "Observation of a New Scaling Relation in the Transition from Synchronized Chaos to Attractor Bubbling", 66th Annual Southeastern Section Meeting of the APS, Chapel Hill, NC, November 8, 1999.

41. * “Experimental Evaluation of Several Proposed Criteria for Synchronization”, 5th SIAM Conference on Applications of Dynamical Systems, Snowbird, UT, May 23, 1999.

42. “Experimental Determination of the Coupling Required for Synchronization of Hyperchaos”, APS Centennial Meeting, Atlanta, GA, March 22, 1999.

43. “Experimental Comparison of Synchronization Criteria Using Non-normal Oscillators”, Dynamics Days, Atlanta, GA, January 6, 1999.