

GEORGE N. KARYSTINOS, Ph.D.

Associate Professor
School of Electrical and Computer Engineering
Technical University of Crete
Kounoupidiana, Chania, 73100, Greece

tel.: +30-28210-37343, +30-6977-354323
fax: +30-28210-37542
email: karystinos@telecom.tuc.gr
url: <http://www.telecom.tuc.gr/~karystinos/>

EDUCATION

- **Ph.D.**, Electrical Engineering, State University of New York at Buffalo, Buffalo, NY, July 2003.
- **Diploma**, Computer Engineering and Science, University of Patras, Patras, Greece, July 1997.

RESEARCH INTERESTS

- Communication theory, adaptive signal processing, L_1 -norm principal component analysis of data and signals, signal waveform design, low-complexity sequence detection, sparse principal component analysis, optimization with low complexity and limited data, uncertainty quantification.

ACADEMIC POSITIONS

- **Associate Professor**, School of Electrical and Computer Engineering, Technical University of Crete, Chania, Greece, 2012 - present.
- **Assistant Professor**, School of Electrical and Computer Engineering, Technical University of Crete, Chania, Greece, 2005 - 2012.
- **Assistant Professor**, Dept. of Electrical Engineering, Wright State University, Dayton, OH, 2003 - 2005.

AWARDS

- **IEEE ICASSP 2015 Best Student Paper Award** (Intern. Conf. Acoust., Speech and Signal Proc.)
“Noncoherent sequence detection of orthogonally modulated signals in flat fading with log-linear complexity,”
in Proc. IEEE ICASSP 2015, pp. 2974-2978, by P. N. Alevizos, Y. Fountzoulas, G. N. Karystinos, and A. Bletsas.
- **IEEE ISWCS 2013 Best Paper Award** (Intern. Symp. Wireless Comm. Syst.)
“Some options for L_1 -subspace signal processing,”
in Proc. IEEE ISWCS 2013, pp. 622-626, by P. P. Markopoulos, G. N. Karystinos, and D. A. Pados.
- **IEEE RFID-TA 2011 Second Best Student Paper Award** (Intern. Conf. RFID-Tech. Applic.)
“Inventory time reduction in Gen2 with single-antenna separation of FM0 RFID signals,”
in Proc. IEEE RFID-TA 2011, by J. Kimionis, A. Bletsas, A. G. Dimitriou, and G. N. Karystinos.
- **2003 IEEE Transactions on Neural Networks Outstanding Paper Award** (papers published in years 2000 and 2001)
“On overfitting, generalization, and randomly expanded training sets,”
IEEE Trans. Neural Net., vol. 11, pp. 1050-1057, Sept. 2000, by G. N. Karystinos and D. A. Pados.
- **IEEE ICT 2001 Paper Award** (IEEE International Conf. on Telecom.)
“New bounds on the total-squared-correlation and optimum design of DS-CDMA binary signature sets,”
in Proc. IEEE ICT 2001, vol. 3, pp. 260-265, by G. N. Karystinos and D. A. Pados.
- **“Prof. David M. Benenson,” Dept. of Electrical Engineering Graduate Research Award**
Department of Electrical Engineering, State University of New York at Buffalo, Mar. 2001 (\$500).
- **I. S. Latsis Foundation Graduate Studies Fellowship Award**
I. S. Latsis Foundation, Athens, Greece, 1998-2001 (\$31,000).
- **I. S. Latsis Foundation Undergraduate Studies Fellowship Award**
I. S. Latsis Foundation, Athens, Greece, 1993-1997 (\$5,000).
- **IEEE Merit-based Student Travel Grants**
IEEE ICC 2003 (International Conf. on Communications), Anchorage, AK (\$1,000).
IEEE GLOBECOM 2001 (Global Communications Conf.), San Antonio, TX (\$600).
- **Second (2nd) Award, National Competition in Mathematics**
National Mathematical Association, Athens, Greece, Apr. 1992.

SPONSORED RESEARCH

- PI (%effort: 100%), “*Plasma Antenna Technologies*,” European Commission, Horizon 2020 Program, Grant No. 734629, Jan. 1, 2017 - Dec. 31, 2020, 153,000 EUR.
- PI (%effort: 33%), “*Distributed Wireless Communications*,” Ministry of National Education of Greece, Thales Program, Jan. 1, 2012 - Sept. 30, 2015, 600,000 EUR.
- PI (%effort: 100%), “*Power and Rate Efficient Modulation in UHF-SHF Multicarrier Communications*,” European Commission, Sixth Framework Program, Grant No. 46563, June 1, 2007 - May 31, 2009, 80,000 EUR.
- PI (%effort: 100%), “*Development of Signal Design and Processing Methods in Wireless Communications*,” Technical University of Crete, Basic Research Grant, Grant No. 405/002, Mar. 1, 2008 - Oct. 30, 2008, 5,000 EUR.

Journal Articles (appeared/accepted for publication)

1. P. P. Markopoulos and G. N. Karystinos, "Noncoherent Alamouti phase-shift keying with full-rate encoding and polynomial-complexity maximum-likelihood decoding," *IEEE Transactions on Wireless Communications*, to appear.
2. P. N. Alevizos, A. Bletsas, and G. N. Karystinos, "Noncoherent short packet detection and decoding for scatter radio sensor networking," *IEEE Transactions on Communications*, vol. 65, pp. 2128-2140, May 2017.
3. P. N. Alevizos, Y. Fountzoulas, G. N. Karystinos, and A. Bletsas, "Log-linear-complexity GLRT-optimal noncoherent sequence detection for orthogonal and RFID-oriented modulations," *IEEE Transactions on Communications*, vol. 64, pp. 1600-1612, Apr. 2016.
4. M. Gkizeli and G. N. Karystinos, "Maximum-SNR antenna selection among a large number of transmit antennas," *IEEE Journal of Selected Topics in Signal Processing*, vol. 8, pp. 891-901, Oct. 2014.
5. P. P. Markopoulos, G. N. Karystinos, and D. A. Pados, "Optimal algorithms for L_1 -subspace signal processing," *IEEE Transactions on Signal Processing*, vol. 62, pp. 5046-5058, Oct. 2014.
6. M. Asteris, D. S. Papailiopoulos, and G. N. Karystinos, "The sparse principal component of a constant-rank matrix," *IEEE Transactions on Information Theory*, vol. 60, pp. 2281-2290, Apr. 2014.
7. A. Kyrillidis and G. N. Karystinos, "Fixed-rank Rayleigh quotient maximization by an MPSK sequence," *IEEE Transactions on Communications*, vol. 62, pp. 961-975, Mar. 2014.
8. D. S. Papailiopoulos, G. Abou Elkheir, and G. N. Karystinos, "Maximum-likelihood noncoherent PAM detection," *IEEE Transactions on Communications*, vol. 61, pp. 1152-1159, Mar. 2013.
9. A. Bletsas, J. Kimionis, A. G. Dimitriou, and G. N. Karystinos, "Single-antenna coherent detection of collided FM0 RFID signals," *IEEE Transactions on Communications*, vol. 60, pp. 756-766, Mar. 2012.
10. K. R. Dalbey and G. N. Karystinos, "Generating a maximally spaced set of bins to fill for high-dimensional space-filling Latin hypercube sampling," *International Journal for Uncertainty Quantification*, vol. 1, pp. 241-255, July 2011.
11. H. Ganapathy, D. A. Pados, and G. N. Karystinos, "New bounds and optimal binary signature sets-Part II: Aperiodic total squared correlation," *IEEE Transactions on Communications*, vol. 59, pp. 1411-1420, May 2011.
12. H. Ganapathy, D. A. Pados, and G. N. Karystinos, "New bounds and optimal binary signature sets-Part I: Periodic total squared correlation," *IEEE Transactions on Communications*, vol. 59, pp. 1123-1132, Apr. 2011.
13. G. N. Karystinos and A. P. Liavas, "Efficient computation of the binary vector that maximizes a rank-deficient quadratic form," *IEEE Transactions on Information Theory*, vol. 56, pp. 3581-3593, July 2010.
14. D. S. Papailiopoulos and G. N. Karystinos, "Maximum-likelihood noncoherent OSTBC detection with polynomial complexity," *IEEE Transactions on Wireless Communications*, vol. 9, pp. 1935-1945, June 2010.
15. G. N. Karystinos and D. A. Pados, "Rank-2-optimal adaptive design of binary spreading codes," *IEEE Transactions on Information Theory*, vol. 53, pp. 3075-3080, Sept. 2007.
16. G. N. Karystinos and D. A. Pados, "Supervised phase correction of blind space-time DS/CDMA channel estimates," *IEEE Transactions on Communications*, vol. 55, pp. 584-592, Mar. 2007.
17. G. N. Karystinos and D. A. Pados, "The maximum squared correlation, total asymptotic efficiency, and sum capacity of minimum total-squared-correlation binary signature sets," *IEEE Transactions on Information Theory*, vol. 51, pp. 348-355, Jan. 2005.

18. S. Gopalan, G. N. Karystinos, and D. A. Pados, "Capacity, throughput, and delay of slotted ALOHA DS-CDMA links with adaptive space-time auxiliary-vector receivers," *IEEE Transactions on Wireless Communications*, vol. 4, pp. 79-92, Jan. 2005.
19. G. N. Karystinos and D. A. Pados, "New bounds on the total squared correlation and optimum design of DS-CDMA binary signature sets," *IEEE Transactions on Communications*, vol. 51, pp. 48-51, Jan. 2003.
20. G. N. Karystinos, H. Qian, M. J. Medley, and S. N. Batalama, "Short-data-record adaptive filtering: The auxiliary-vector algorithm," *Digital Signal Processing*, vol. 12, pp. 193-222, Apr./July 2002.
21. D. A. Pados and G. N. Karystinos, "An iterative algorithm for the computation of the MVDR filter," *IEEE Transactions on Signal Processing*, vol. 49, pp. 290-300, Feb. 2001.
22. G. N. Karystinos and D. A. Pados, "On overfitting, generalization, and randomly expanded training sets," *IEEE Transactions on Neural Networks*, vol. 11, pp. 1050-1057, Sept. 2000 (Outstanding Paper Award).

Peer-Reviewed Conference Papers (appeared/accepted for publication)

1. P. P. Markopoulos, D. A. Pados, G. N. Karystinos, and M. Langberg, "L1-norm principal-component analysis in L2-norm-reduced-rank data subspaces," in *Proc. SPIE Compressive Sensing VI: From Diverse Modalities to Big Data Analytics*, Anaheim, CA, Apr. 2017.
2. P. P. Markopoulos, N. Tsagkarakis, D. A. Pados, and G. N. Karystinos, "Direction-of-arrival estimation by L1-norm principal components," in *Proc. IEEE PHASED ARRAY 2016 - International Symposium on Phased Array Systems and Technology (PAST)*, Boston, MA, Oct. 2016.
3. M. Gkizeli and G. N. Karystinos, "Polynomial-complexity GLRT-optimal noncoherent PNC," in *Proc. IEEE ISWCS 2016 - International Symposium on Wireless Communication Systems*, Poznan, Poland, Sept. 2016, pp. 258-264.
4. Y. Fountzoulas, D. Chachlakis, G. N. Karystinos, A. Bletsas, "GLRT-optimal blind MSK detection with log-linear complexity," in *Proc. IEEE ICT 2016 - International Conference on Telecommunications*, Thessaloniki, Greece, May 2016.
5. Y. Fountzoulas, A. Kosta, and G. N. Karystinos, "Polar-code-based security on the BSC-modeled HARQ in fading," in *Proc. IEEE ICT 2016 - International Conference on Telecommunications*, Thessaloniki, Greece, May 2016.
6. Y. Fountzoulas and G. N. Karystinos, "Optimal blind APSK detection in polynomial time," in *Proc. IEEE VTC 2015 Fall - Vehicular Technology Conference*, Boston, MA, Sept. 2015.
7. G. N. Karystinos and A. Bletsas, "Cubic-complexity optimal noncoherent OOK sequence detection in flat fading," in *Proc. IEEE ICC 2015 - International Conference on Communications*, London, UK, June 2015, pp. 2721-2726.
8. P. N. Alevizos, Y. Fountzoulas, G. N. Karystinos, and A. Bletsas, "Noncoherent sequence detection of orthogonally modulated signals in flat fading with log-linear complexity," in *Proc. IEEE ICASSP 2015 - Intern. Conf. Acoust., Speech and Signal Proc.*, Brisbane, Australia, Apr. 2015, pp. 2974-2978 (Best Paper Award).
9. P. P. Markopoulos, N. Tsagkarakis, D. A. Pados, and G. N. Karystinos, "Direction finding with L1-norm subspaces," in *Proc. SPIE Compressive Sensing Conference, SPIE Defense, Security, and Sensing (DSS 2014)*, Baltimore, MD, May 2014.
10. P. P. Markopoulos, G. N. Karystinos, and D. A. Pados, "Some options for L_1 -subspace signal processing," in *Proc. IEEE ISWCS 2013 - International Symposium on Wireless Communication Systems*, Ilmenau, Germany, Aug. 2013, pp. 622-626 (Best Paper Award).

11. M. Gkizeli and G. N. Karystinos, "Maximum-SNR transmit antenna selection with two receive antennas is polynomially solvable," in *Proc. IEEE ICASSP 2013 - Intern. Conf. Acoust., Speech and Signal Proc.*, Vancouver, BC, May 2013, pp. 4749-4753.
12. P. P. Markopoulos and G. N. Karystinos, "Novel full-rate noncoherent Alamouti encoding that allows polynomial-complexity optimal decoding," in *Proc. IEEE ICASSP 2013 - Intern. Conf. Acoust., Speech and Signal Proc.*, Vancouver, BC, May 2013, pp. 5075-5079.
13. D. Koupatsiaris and G. N. Karystinos, "Efficient DOA, DOD, and target estimation for bistatic MIMO SONAR," in *Proc. IEEE ICASSP 2013 - Intern. Conf. Acoust., Speech and Signal Proc.*, Vancouver, BC, May 2013, pp. 5155-5159.
14. M. Gkizeli and G. N. Karystinos, "Maximum-SNR transmit antenna selection with unimodular beamforming and two receive antennas," in *Proc. 2013 Conference on Information Sciences and Systems (CISS)*, Baltimore, MD, Mar. 2013.
15. D. S. Papailiopoulos, G. Abou Elkheir, and G. N. Karystinos, "Maximum-likelihood blind PAM detection," in *Proc. IEEE ICC 2012 - International Conference on Communications*, Ottawa, ON, June 2012, pp. 2283-2287.
16. J. Kimionis, A. Bletsas, A. G. Dimitriou, and G. N. Karystinos, "Inventory time reduction in Gen2 with single-antenna separation of FM0 RFID signals," in *Proc. IEEE RFID-TA 2011 - Intern. Conf. RFID-Tech. Applic.*, Sitges, Spain, Sept. 2011, pp. 494-501 (Second Best Student Paper Award).
17. M. Asteris, D. S. Papailiopoulos, and G. N. Karystinos, "Sparse principal component of a rank-deficient matrix," in *Proc. IEEE ISIT 2011 - Intern. Symp. Inform. Theory*, Saint Petersburg, Russia, Aug. 2011, pp. 673-677.
18. K. R. Dalbey and G. N. Karystinos, "Fast generation of nested space-filling Latin hypercube sample designs," in *Proc. 11th U.S. National Congress on Computational Mechanics*, Minneapolis, MN, July 2011.
19. A. T. Kyrillidis and G. N. Karystinos, "Rank-deficient quadratic-form maximization over M-phase alphabet: Polynomial-complexity solvability and algorithmic developments," in *Proc. IEEE ICASSP 2011 - Intern. Conf. Acoust., Speech and Signal Proc.*, Prague, Czech Republic, May 2011, pp. 3856-3859.
20. K. R. Dalbey and G. N. Karystinos, "Fast generation of nested space-filling Latin hypercube sample designs," presentation in *2011 SIAM Conference on Computational Science and Engineering*, Reno, NV, Mar. 2011.
21. K. R. Dalbey and G. N. Karystinos, "Fast generation of low discrepancy spacefilling Latin hypercube sample designs," presentation in *SEM IMAC XXIX Conference and Exposition on Structural Dynamics*, Jacksonville, FL, Feb. 2011.
22. K. R. Dalbey and G. N. Karystinos, "Fast generation of space-filling Latin hypercube sample designs," in *Proc. 13th AIAA/ISSMO Multidisciplinary Analysis and Optimization Conference*, Fort Worth, TX, Sept. 2010, vol. 1, pp. 473-496.
23. D. S. Papailiopoulos and G. N. Karystinos, "Optimal OSTBC sequence detection over unknown correlated fading channels," in *Proc. 2009 Asilomar Conference on Signals, Systems, and Computers*, Pacific Grove, CA, Nov. 2009, pp. 1441-1445.
24. M. Gkizeli and G. N. Karystinos, "Noncoherent detection in amplify-and-forward relay systems," in *Proc. IEEE GLOBECOM 2008, Comm. Theory Symp.*, New Orleans, LA, Dec. 2008.
25. D. S. Papailiopoulos and G. N. Karystinos, "Efficient maximum-likelihood noncoherent orthogonal STBC detection," in *Proc. 2008 Allerton Conference on Communication, Control, and Computing*, Allerton House, Monticello, IL, Sept. 2008, pp. 294-300.
26. G. N. Karystinos and A. P. Liavas, "Quadratic form maximization over the binary field with polynomial complexity," in *Proc. IEEE ISIT 2008 - Intern. Symp. Inform. Theory*, Toronto, ON, July 2008, pp. 2449-2453.

27. G. N. Karystinos, D. A. Pados, S. N. Batalama, and J. D. Matyjas, "Auxiliary-vector detection on measured radar data," in *Proc. 2008 IEEE Radar Conference*, Rome, Italy, May 2008, pp. 1134-1138.
28. A. P. Liavas and G. N. Karystinos, "Outage capacity of a noncoherent cooperative scheme with binary input and a simple relay," in *Proc. IEEE ISWPC 2008 - Intern. Symp. Wireless Pervasive Computing*, Santorini, Greece, May 2008, pp. 661-664.
29. G. N. Karystinos and A. P. Liavas, "Efficient computation of the binary vector that maximizes a rank-deficient quadratic form," in *Proc. IEEE ICASSP 2008 - Intern. Conf. Acoust., Speech and Signal Proc.*, Las Vegas, NV, Apr. 2008, pp. 3577-3580.
30. G. N. Karystinos and A. P. Liavas, "Outage capacity of a cooperative scheme with binary input and a simple relay," in *Proc. IEEE ICASSP 2008 - Intern. Conf. Acoust., Speech and Signal Proc.*, Las Vegas, NV, Apr. 2008, pp. 3221-3224.
31. D. S. Papailiopoulos and G. N. Karystinos, "Polynomial-complexity maximum-likelihood block noncoherent MPSK detection," in *Proc. IEEE ICASSP 2008 - Intern. Conf. Acoust., Speech and Signal Proc.*, Las Vegas, NV, Apr. 2008, pp. 2681-2684.
32. D. S. Papailiopoulos and G. N. Karystinos, "Efficient computation of the M-phase vector that maximizes a rank-deficient quadratic form," in *Proc. 2008 Conf. on Inform. Sc. and Syst. (CISS 2008)*, Princeton University, Princeton, NJ, Mar. 2008, pp. 1086-1090.
33. D. A. Pados, G. N. Karystinos, S. N. Batalama, and J. D. Matyjas, "Auxiliary-vector RADAR on MCARM data," (invited paper) in *Proc. 2007 Asilomar Conference on Signals, Systems, and Computers*, Pacific Grove, CA, Nov. 2007, pp. 2028-2032.
34. D. S. Papailiopoulos and G. N. Karystinos, "Near ML detection of nonlinearly distorted OFDM signals," in *Proc. 2007 Asilomar Conference on Signals, Systems, and Computers*, Pacific Grove, CA, Nov. 2007, pp. 1756-1760.
35. H. Ganapathy, D. A. Pados, and G. N. Karystinos, "New bounds on the aperiodic total squared correlation of binary signature sets and optimal designs," in *Proc. IEEE ICC 2007 - International Conference on Communications*, Glasgow, UK, June 2007, pp. 914-919.
36. D. A. Pados, G. N. Karystinos, S. N. Batalama, and J. D. Matyjas, "Short-data-record adaptive detection," in *Proc. 2007 IEEE Radar Conference*, Waltham, MA, Apr. 2007, pp. 357-361.
37. G. N. Karystinos and A. P. Liavas, "Efficient computation of the binary vector that maximizes a rank-3 quadratic form," in *Proc. 2006 Allerton Conference on Communication, Control, and Computing*, Allerton House, Monticello, IL, Sept. 2006, pp. 1286-1291.
38. G. N. Karystinos and D. A. Pados, "Bit-error-rate and maximum-SINR performance of the odd-length minimum-TSC binary signature sets," in *Proc. IEEE ICT 2006 - International Conference on Telecommunications*, Madeira Island, Portugal, May 2006.
39. G. N. Karystinos and D. A. Pados, "On the design of maximum-SINR binary spreading codes," in *Proc. IEEE ICT 2006 - International Conference on Telecommunications*, Madeira Island, Portugal, May 2006.
40. G. N. Karystinos and D. A. Pados, "Code division multiplexing properties of the odd-length minimum-TSC binary signature sets," in *Proc. 2006 Conference on Information Sciences and Systems (CISS)*, Princeton University, Princeton, NJ, Mar. 2006, pp. 1540-1545.
41. G. N. Karystinos and D. A. Pados, "Rank-2-optimal binary spreading codes," in *Proc. 2006 Conference on Information Sciences and Systems (CISS)*, Princeton University, Princeton, NJ, Mar. 2006, pp. 1534-1539.

42. A. O. Nasif and G. N. Karystinos, "Binary transmissions over additive Gaussian noise: A closed-form expression for the channel capacity," in *Proc. 2005 Conference on Information Sciences and Systems (CISS)*, Baltimore, MD, Mar. 2005.
43. G. N. Karystinos and D. A. Pados, "Code division multiplexing performance of minimum total-squared-correlation binary signature sets," in *Proc. IEEE GLOBECOM 2003*, Communication Theory Symposium, San Francisco, CA, Dec. 2003, vol. 4, pp. 1862-1866.
44. G. N. Karystinos and D. A. Pados, "Binary CDMA signature sets with concurrently minimum total-squared-correlation and maximum-squared-correlation," in *Proc. IEEE ICC 2003 - International Conference on Communications*, Anchorage, AK, May 2003, vol. 4, pp. 2500-2503.
45. G. N. Karystinos and D. A. Pados, "Performance analysis of doubly optimal CDMA spreading codes with odd length," in *Proc. SPIE's 17th Annual International Symposium, Digital Wireless Communication Conference*, Orlando, FL, Apr. 2003, vol. 5100, pp. 215-226.
46. G. N. Karystinos and D. A. Pados, "Fundamental code division multiplexing properties of minimum total-squared-correlation binary signature sets," in *Proc. 2003 Conference on Information Sciences and Systems (CISS)*, Baltimore, MD, Mar. 2003.
47. G. N. Karystinos, H. Qian, M. J. Medley, and S. N. Batalama, "Short-data-record adaptive filtering: The auxiliary-vector algorithm," in *Proc. 2001/2002 Workshop on Defense Applications of Signal Processing*, Adelaide, Australia, June 2002.
48. J. D. Matyjas, G. N. Karystinos, and S. N. Batalama, "On the training of DS-CDMA neural-network receivers," in *Proc. IEEE ICASSP 2002 - International Conference on Acoustics, Speech and Signal Processing*, Orlando, FL, May 2002, vol. I, pp. 1017-1020.
49. G. N. Karystinos and D. A. Pados, "Minimum total-squared-correlation design of DS-CDMA binary signature sets," in *Proc. IEEE GLOBECOM 2001*, Communication Theory Symposium, San Antonio, TX, Nov. 2001, vol. 2, pp. 801-805.
50. G. N. Karystinos and D. A. Pados, "New bounds on the total-squared-correlation and optimum design of DS-CDMA binary signature sets," in *Proc. IEEE ICT 2001 - International Conference on Telecommunications*, Bucharest, Romania, June 2001, vol. 3, pp. 260-265 (Paper Award).
51. G. N. Karystinos and D. A. Pados, "Adaptive assignment of binary user spreading codes in DS-CDMA systems," in *Proc. SPIE's 15th Annual International Symposium, Digital Wireless Communication Conference*, Orlando, FL, Apr. 2001, vol. 4395, pp. 137-144.
52. D. A. Pados and G. N. Karystinos, "Short-data-record estimators of the MVDR/MMSE filter," in *Proc. IEEE ICASSP 2000 - International Conference on Acoustics, Speech and Signal Processing*, Istanbul, Turkey, June 2000, vol. I, pp. 384-387.
53. G. N. Karystinos and D. A. Pados, "Recovering the phase of blind space-time DS/CDMA channel estimates," in *Proc. IEEE ICT 2000 - International Conference on Telecommunications*, Acapulco, Mexico, May 2000, vol. 2, pp. 1010-1014.
54. D. A. Pados and G. N. Karystinos, "A sequence of MVDR filter estimators," in *Proc. IEEE ICT 2000 - International Conference on Telecommunications*, Acapulco, Mexico, May 2000, vol. 2, pp. 790-794.
55. G. N. Karystinos and D. A. Pados, "Multiuser differential-PSK demodulators for DS/CDMA signals," in *Proc. SPIE's 14th Annual International Symposium, Digital Wireless Communication Conference*, Orlando, FL, Apr. 2000, vol. 4045, pp. 155-166.

56. G. N. Karystinos and D. A. Pados, "Supervised phase correction of blind space-time DS/CDMA channel estimates," in *Proc. 2000 Conference on Information Sciences and Systems (CISS)*, Princeton University, Princeton, NJ, Mar. 2000, vol. I, pp. TA8a.5-TA8a.10.
57. G. N. Karystinos and D. A. Pados, "On DPSK demodulation of DS/CDMA signals," in *Proc. IEEE GLOBECOM 1999*, Communication Theory Symposium, Rio de Janeiro, Brazil, Dec. 1999, vol. 5, pp. 2487-2492.

TEACHING EXPERIENCE

School of Electrical and Computer Engineering, Technical University of Crete, Greece

- TEL 201 - Signals and Systems.
Student evaluation grade average (x/5): 4.12 (Fall 2006), 4.02 (Fall 2007), 3.86 (Fall 2008), 4.14 (Fall 2009), - (Fall 2010), - (Fall 2011), - (Fall 2013), - (Fall 2014), - (Fall 2015), - (Fall 2016).
- TEL 416 - Information Theory and Coding (Spring 2007, Spring 2008, Spring 2009, Spring 2010, Spring 2015, Spring 2016, Spring 2017).
- TEL 501/609 - Wireless Communication Systems (Fall 2005).
- TEL 415 - Statistical Signal Processing for Communications (Spring 2006, Spring 2014, Spring 2015, Spring 2016).
- TEL 601 - Probability and Random Processes (Fall 2006, Fall 2007, Fall 2008, Fall 2010).
- TEL 611 - Coding Theory (Spring 2010, Fall 2013, Spring 2017).

Dept. of Electrical Engineering, Wright State University

- EE 480/680 - Modern Digital Communications.
Student evaluation grade average (x/5): 4.65 (Spring 2004).
- EE 761 - Random Processes.
Student evaluation grade average (x/5): 3.75 (Spring 2004, Fall 2004).
- EE 735 - Wireless Communication Techniques.
Student evaluation grade average (x/5): 4.7 (Winter 2004, Winter 2005).
- EE 421/621 - Communication Theory.
Student evaluation grade average (x/5): 4.28 (Fall 2003, Fall 2004, Winter 2005).

Dept. of Electrical Engineering, State University of New York at Buffalo

- EE 203 - Electric Circuits II (Fall 1997, Spring 1998).

GRADUATE STUDENT ADVISING

- Yannis Fountzoulas, Ph.D. student, Technical University of Crete.
- Dimitris Koupatsiaris, Ph.D. student, Technical University of Crete.
- Yannis Fountzoulas, M.Sc., Technical University of Crete, Oct. 2014.
Thesis title: “Optimal blind detection of APSK in polynomial time.”
- Panagiotis P. Markopoulos, M.Sc., Technical University of Crete, Aug. 2012.
Thesis title: “Full-rate differential MPSK Alamouti modulation with polynomial-complexity maximum-likelihood non-coherent detection.”
- Georgina Abou-Elkheir, M.Sc., Technical University of Crete, Dec. 2011.
Thesis title: “Maximum-likelihood noncoherent PAM detection.”
- Anastasios Kyrillidis, M.Sc., Technical University of Crete, Aug. 2010.
Thesis title: “Polynomial-complexity computation of the M-phase vector that maximizes a rank-deficient quadratic form.”
- Dimitris S. Papailiopoulos, M.Sc., Technical University of Crete, July 2009.
Thesis title: “Maximum-likelihood noncoherent OSTBC detection with polynomial complexity.”
- Qian Huang, M.Sc., Wright State University, Mar. 2005.
Thesis title: “Adaptive design of polyphase sequences.”
- Ahmed O. Nasif, M.Sc., Wright State University, Mar. 2005.
Thesis title: “Binary and quadrature transmissions over additive Gaussian noise: The exact channel capacity.”

UNDERGRADUATE STUDENT ADVISING

- Konstantinos M. Konstantinidis, Diploma, Technical University of Crete, Dec. 2016.
Thesis title: “Fast synchronization of FSK signals,”
- Ioannis Papoutsidakis, Diploma, Technical University of Crete, July 2016.
Thesis title: “Pascal-matrix polar coding for prime-input channels.”
- Dimitris Chachlakis, Diploma, Technical University of Crete, July 2016.
Thesis title: “Optimal noncoherent trellis decoding.”
- Manos Fountoulakis, Diploma, Technical University of Crete, July 2016.
Thesis title: “Subspace tracking for nested arrays.”
- Angela Kosta, Diploma, Technical University of Crete, Jan. 2015.
Thesis title: “Coding for the wiretap channel.”
- Alexandros Sklikas, Diploma, Technical University of Crete, July 2014.
Thesis title: “An algorithm with complexity $O(N^3 \log N)$ for rank-4 quadratic form maximization with a binary vector.”
- Yannis Fountzoulas, Diploma, Technical University of Crete, Aug. 2012.
Thesis title: “Selection of subsets of orientations for high-dimensional space-filling Latin hypercube sampling.”

- Nikolaos Tsagkarakis, Diploma, Technical University of Crete, July 2011.
Thesis title: “Design and decoding of polar codes.”
- Panagiotis Markopoulos, Diploma, Technical University of Crete, Oct. 2010.
Thesis title: “Maximum-likelihood noncoherent OSTBC MPSK detection.”
- Megasthenis Asteris, Diploma, Technical University of Crete, July 2010.
Thesis title: “Sparse rank-deficient variance maximization.”
- Nikolaos Kolomvakis, Diploma, Technical University of Crete, July 2010.
Thesis title: “Zero-error varying-length distributed source coding.”
- Anastasia Barkalaki, Diploma, Technical University of Crete, Nov. 2009.
Thesis title: “Rank-deficient quadratic form maximization with a binary vector: Parallelization and implementation in C.”
- Dimitris S. Papailiopoulos, Diploma, Technical University of Crete, Oct. 2007.
Thesis title: “Efficient maximum-likelihood block noncoherent MPSK detection in SIMO wireless systems.”
- Anthony J. Halley, B.Sc., Wright State University, July 2005.
Research in signal processing for communications.

PROFESSIONAL ACTIVITIES AND SERVICE

- Technical Program Committee Member:
 - IEEE Wireless Communications and Networking Conference (WCNC)- PHY Track: 2013-2017.
 - IEEE International Conference on Telecommunications (ICT): 2016.
 - IEEE International Conference on Communications (ICC) - Wireless Communications Symposium: 2007, 2010, 2012, 2015.
 - IEEE International Conference on Communications (ICC) - Communication Theory Symposium: 2009.
 - International Conference on Signal Processing & Data Mining (ICSPDM) 2015.
 - IEEE International Symposium on Wireless Communication Systems (ISWCS): 2010, 2013.
 - IEEE GLOBECOM 2007 - Communication Theory Symposium.
- Reviewer for journals:
 - IEEE Transactions on Information Theory
 - IEEE Transactions on Communications
 - IEEE Transactions on Wireless Communications
 - IEEE Journal on Selected Areas in Communications
 - IEEE Transactions on Signal Processing
 - IEEE Transactions on Neural Networks
 - IEEE Transactions on Vehicular Technology
 - Journal of Computational Mathematics
 - Digital Signal Processing
 - IEEE Communications Letters
 - IEEE Signal Processing Letters
 - Wireless Communications and Mobile Computing
 - International Journal of Communication Systems

- Reviewer for conferences:
 - IEEE Global Communications Conference (IEEE GLOBECOM)
 - IEEE International Conference on Communications (IEEE ICC)
 - IEEE International Conference on Acoustics, Speech, and Signal Processing (IEEE ICASSP)
 - IEEE International Symposium on Information Theory (IEEE ISIT)
 - IEEE International Conference on Telecommunications (IEEE ICT)
 - IEEE Vehicular Technology Conference (IEEE VTC)
 - IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (IEEE PIMRC)
 - IEEE Wireless Communications and Networking Conference (IEEE WCNC)
 - IEEE Workshop on Signal Processing Systems (IEEE SIPS)
- Service at Technical University of Crete:
 - *Director of Graduate Studies*, School of Electrical and Computer Engineering, Technical University of Crete, 2016 - present.
 - *Member of the Board of Directors, Property Development and Management Company*, Technical University of Crete, 2015-present.
 - *Undergraduate Studies Committee*, School of Electrical and Computer Engineering, Technical University of Crete, 2013 - present.
 - *Graduate Studies Committee*, School of Electrical and Computer Engineering, Technical University of Crete, 2006 - 2011.
 - *Organizer of Telecommunications Division Annual Seminar Series*, School of Electrical and Computer Engineering, Technical University of Crete, 2006 - 2010.
 - *Member of the University Senate*, Technical University of Crete, 2008 - 2009.
- Service at Wright State University:
 - *DSP/Wireless Subcommittee*, Dept. of Electrical Engineering, Wright State University, 2003 - 2005.
- Service at State University of New York at Buffalo:
 - *Mark Diamond Research Fund Review Committee*, State University of New York at Buffalo, 2002 - 2003.
 - *Graduate Student Association Finance Committee*, State University of New York at Buffalo, 2002 - 2003.
 - *President of Hellenic Graduate Student Association*, State University of New York at Buffalo, 2000 - 2001.
- Memberships:
 - *IEEE Communications, Information Theory, Signal Processing, and Neural Networks Societies.*
 - *American Association of University Professors.*
 - *American Society for Engineering Education.*
 - *Eta Kappa Nu.*

OTHER EDUCATION AND INTERESTS

- **Graduate courses on Piano**, Department of Music, State University of New York at Buffalo, Class of Stephen Manes, Buffalo, NY, Jan. 2001 - June 2002.
- **Diploma, Piano (Grade: Excellent, with Distinction)**, National Conservatory of Athens, Class of Myrto Mavrikou, Athens, Greece, June 1997 (two-year program).
- **Bachelor's, Piano (Grade: Excellent, with Distinction)**, National Conservatory of Athens, Class of Aleka Damira, Athens, Greece, June 1995 (twelve-year program).