### **PANAGIOTIS TSIAMYRTZIS**

Associate Professor Department of Statistics Athens University of Economics & Business Research Associate Professor Department of Computer Science University of Houston

#### **Business Address**

Athens University of Economics and Business Department of Statistics 76 Patission Street Athens 104 34, Greece Telephone: +30–210–8203926

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### **Appointments**

2014 –	Associate Professor, Athens University of Economics and Business, Dept. of Statistics
2014 –	Research Associate Professor, University of Houston, Dept. of Computer Science
2011 - 2014	Research Assistant Professor, University of Houston, Dept. of Computer Science
2009 - 2014	Assistant Professor, Athens University of Economics and Business, Dept. of Statistics
2007 - 2011	Adjunct Assistant Professor, University of Houston, Dept. of Computer Science
2003 - 2009	Lecturer, Athens University of Economics and Business, Dept. of Statistics
2001 - 2003	Visiting Lecturer, Athens Univ. of Economics and Business, Dept. of Statistics
2000 - 2001	Military Service, Greek Army (compulsory service)
1999 - 2000	Visiting Assistant Professor, University of Minnesota, School of Statistics
1999 – 1999	Student Intern, Honeywell Labs, Minneapolis, Minnesota
1998 - 2000	Instructor, University of Minnesota, School of Statistics

### Degrees

University of Minnesota, School of Statistics, Twin Cities, Minnesota **Ph.D. in Statistics**, 1997–2000.

Title: "Bayesian Approach to Quality Control Problems". Advisor: Douglas M. Hawkins. Committee: Seymour Geisser (Chair), Bradley P. Carlin, Charles Geyer.

University of Minnesota, School of Statistics, Twin Cities, Minnesota **M.Sc. in Statistics**, 1995–1997

Aristotle University of Thessaloniki, Dept. of Mathematics, Thessaloniki, Greece **B.Sc. in Mathematics**, 1990–1994

#### **Research Interests**

Statistical Aspects of Computational Physiology Problems Bayesian Statistical Process Control Applied Statistics

#### Research Awards

- 1. Winner of the "Best Talk Award", at the ENBIS 7 (European Network for Business and Industrial Statistics), Dortmund, Germany, September 2007.
- 2. Winner of the "Best Contributed Paper Award" of the American Statistical Association, Section of Risk Analysis, Indianapolis, August 2000 (http://www.amstat.org/sections/srisk/paperaward.htm).
- **3.** Winner of the "Best Student Paper Award" of the American Statistical Association, Section of Risk Analysis, Indianapolis, August 2000 (<a href="http://www.amstat.org/sections/srisk/studentaward.htm">http://www.amstat.org/sections/srisk/studentaward.htm</a>).
- **4.** Student Travel Award from the "Joint Research Conference on Statistics in Quality, Industry and Technology", Seattle, June 2000.
- **5.** University of Minnesota, School of Statistics, Spring Semester Fellowship, March 1996.

#### **Publications**

### **Book Contributions**

- **B04.** J. Dowdall, I. Pavlidis, and P. Tsiamyrtzis (2009), "Coalitional Tracker for Deception Detection in Thermal Imagery", in Augmented Vision Perception in Infrared: Algorithms and Applied Systems, Series: Advances in Pattern Recognition, editor: Hammoud, R. I., Springer, Chapter 5, pp. 113-136.
- **B03.** P. Tsiamyrtzis and D.M. Hawkins (2007), "Bayesian Statistical Process Control", in Encyclopedia of Statistics in Quality and Reliability, editors: F. Ruggeri, F. Faltin and R. Kenett, John Wiley & Sons, Ltd.
- **B02.** P. Tsiamyrtzis and D.M. Hawkins, (2006), "A Bayesian Approach to Statistical Process Control", in Bayesian Monitoring, Control and Optimization, editors: B. M. Colosimo and E. Del Castillo, Chapman and Hall/CRC Press Inc. Chapter 3, pp. 87-107.

**B01.** I. Pavlidis, P. Tsiamyrtzis, C. Manohar, and P. Buddharaju, (2006), "Biometrics: face recognition in thermal infrared", in Biomedical Engineering Handbook, editor: J. D. Bronzino, CRC Press, Chapter 29, pp. 1-16.

## **Papers in Refereed Journals**

- **J22.** I. Semendeferi, P. Tsiamyrtzis, M. Dcosta, I. Pavlidis (2015), "Connecting Past with Present: A Mixed-Methods Science Ethics Course and its Evaluation", to appear.
- **J21.** F. Sobas, P. Tsiamyrtzis, N. Benattar, A. Lienhart and C. Négrier, (2013), "A comparison of the 1<sub>2s</sub> rule and Bayesian approach for quality control: application to one-stage clotting factor VIII assay", Blood coagulation and Fibrinolysis, Vol. 25, no.6, pp. 634-43.
- **J20.** I. Karapanagiotis, D. Mantzouris, C. Cooksey, M. S. Mubarakand and P. Tsiamyrtzis, (2013), "An improved HPLC method coupled to PCA for the identification of Tyrian purple in archaeological and historical samples", Microchemical Journal, Vol. 110, pp. 70–80.
- **J19.** K. D. Zamba, P. Tsiamyrtzis and D. M. Hawkins (2013), "A three-state recursive sequential Bayesian algorithm for biosurveillance", Computational Statistics and Data Analysis, Vol. 58(1), pp. 82-97.
- **J18.** Y. Zhou, P. Tsiamyrtzis, P. Lindner, I. Timofeyev, and I. Pavlidis (2013), "Spatio-Temporal Smoothing as a Basis for Facial Tissue Tracking in Thermal Imaging", IEEE Transactions on Biomedical Engineering, Vol. 60, no. 5, pp. 1280-1289.
- J17. I. Pavlidis, P. Tsiamyrtzis, D. Shastri, A. Wesley, Y. Zhou, P. Lindner, P. Buddharaju, R. Joseph, A. Mandapati, B. Dunkin, and B. Bass (2012), "Fast by Nature How Stress Patterns Define Human Experience and Performance in Dexterous Tasks", NATURE Scientific Reports, vol. 2, 2012, available on line at: <a href="http://www.nature.com/srep/2012/120306/srep00305/full/srep00305.html">http://www.nature.com/srep/2012/120306/srep00305/full/srep00305.html</a>
- **J16.** D. Shastri, M. Papadakis, P. Tsiamyrtzis, B. Bass, and I. Pavlidis (2012), "Perinasal Imaging of Physiological Stress and Its Affective Potential", IEEE Transactions on Affective Computing, vol. 3, no. 3, p. 366-378, (2012).
- **J15.** P. Tsiamyrtzis and D. M. Hawkins (2010), "Bayesian Start up Phase Mean Monitoring of an Autocorrelated Process that is Subject to Random Sized Jumps", Technometrics, Vol. 52(4), pp. 438-452.
- **J14.** F. Sobas, A. Bellisario, P. Tsiamyrtzis, A. Lienhart, C. Nougier and C. Negrier (2010), "Bayesian logic in statistical test control: application to coagulation factor VIII assay", in Blood coagulation and Fibrinolysis, Volume 21, Issue 3, pp. 289-295.

- **J13.** I. Pavlidis, J. Levine, L. MacBride, Z. Zhu, and P. Tsiamyrtzis (2009), "Description and clinical studies of a device for the instantaneous detection of office-place stress", in WORK: A Journal of Prevention, Assessment, and Rehabilitation, vol. 34, no. 3, pp. 359-364.
- **J12.** D. Shastri, A. Merla, P. Tsiamyrtzis, and I. Pavlidis (2009), "Imaging facial signs of neuro-physiological responses", in IEEE Transactions on Biomedical Engineering, Volume 56, no. 2, pp. 477-84.
- **J11.** P. Tsiamyrtzis and D. M. Hawkins (2008), "A Bayesian EWMA Method to Detect Jumps at the Start-Up Phase of a Process", in Quality and Reliability Engineering International, Volume 24, Issue 4, pp. 721-735.
- **J10.** K. D. Zamba, P. Tsiamyrtzis and D. M. Hawkins (2008), "A Sequential Bayesian Control Model for Influenza-Like-Illnesses and Early Detection of Intentional Outbreaks", in Quality Engineering, Volume 20, Issue 4, pp. 495-507.
- **J09.** D. Karlis and P. Tsiamyrtzis (2008), "Exact Bayesian modeling for bivariate Poisson data and extensions", in Statistics and Computing, Volume 18, Issue 1, pp.27-40.
- **J08.** P. Buddharaju, I. Pavlidis, P. Tsiamyrtzis, and M. Bazakos, (2007), "Physiology-based face recognition in the thermal infrared spectrum", in IEEE Transactions on Pattern Analysis and Machine Intelligence, Volume 29, Issue 4, pp. 613-626.
- **J07.** J. Dowdall, I. Pavlidis, and P. Tsiamyrtzis, (2007), "Coalitional tracking", in Computer Vision and Image Understanding, Volume 106, Issue 2-3, pp. 205-219.
- **J06.** P. Tsiamyrtzis, J. Dowdall, D. Shastri, I. Pavlidis, and M.G. Frank, (2007), "Imaging facial physiology for the detection of deceit", in International Journal of Computer Vision, Volume 71, Issue 2, pp. 197-214.
- **J05.** P. Tsiamyrtzis and D. M. Hawkins, (2005), "A Bayesian scheme to detect changes in the mean of a short run process", in Technometrics, Volume 47, Issue 4, pp. 446-456.
- **J04.** P. Tsiamyrtzis and D. Karlis, (2004), "Strategies for efficient computation of multivariate Poisson probabilities", in Communications in Statistics, Simulation and Computation, Volume 33 Issue 2, pp.271-292.
- **J03.** E. Katsanidis, D. Meyer, P. Adis, E. Yancey, M. Dikeman, P. Tsiamyrtzis, M. Pullen, (2003), "Vascular infusion as a means to improve the antioxidant prooxidant ratio of beef", Journal of Food Science, Volume 68 Issue 4, pp.1149 1154.
- **J02.** V. Morellas, I. Pavlidis, and P. Tsiamyrtzis, (2003), "Deter: Detection of Events for Threat Evaluation and Recognition", in Machine Vision and Applications, Volume 15, Issue 1 pp. 29-45.

**J01.** I. Pavlidis, V. Morellas, P. Tsiamyrtzis, and S. Harp, (2001), "Urban surveillance systems: From the laboratory to the commercial world", in Proceedings of the IEEE, Volume 89, Issue 10, pp. 1478-97.

## **Papers at Refereed Conferences**

- **C20.** I. Uyanik, A. Khatri, P. Tsiamyrtzis, and I. Pavlidis (2014), "Design and Usage of an Ozone Mapping App", Proceedings of the wireless health 2014 on National Institutes of Health, pp. 1-7, October 29-31, 2014. Bethesda, Maryland.
- C19. I. Uyanik, D. Price, P. Tsiamyrtzis, and I. Pavlidis (2013), "Interfacing Real-Time Ozone Information", ACM SIGSPATIAL GIS International Workshop on Interacting with Maps (MapInteract), Orlando, FL, 2013.
- C18. I. Uyanik, P. Lindner, P. Tsiamyrtzis, D. Shah, N. Tsekos, I. Pavlidis (2013), "Applying a Level Set Method for Resolving Physiologic Motions in Free-Breathing and Non-gated Cardiac MRI", Proceedings of the 7th International Conference on Functional Imaging and Modeling of the Heart FIMH 2013, Sébastien Ourselin, editors, vol. 7945, Springer Berlin, pp. 466-473, 2013.
- C17. D. Duong, D. Shastri, P. Tsiamyrtzis, and I. Pavlidis (2012), "Spatiotemporal Reconstruction of the Breathing Function", International Conference on Medical Image Computing and Computer Assisted Intervention MICCAI 2012, Lecture Notes in Computer Science, vol. 15, pp.149-156, 2012.
- C16. Y. Zhou, E. Yeniaras, P. Tsiamyrtzis, N. Tsekos, I. Pavlidis (2010), "Collaborative Tracking for MRI-Guided Robotic Intervention on the Beating Heart", Proceedings of the 13th International Conference on Medical Image Computing and Computer Assisted Intervention MICCAI 2010, Lecture Notes in Computer Science, Beijing, China, vol. 6363, pp. 351-358, September 2010.
- C15. D. Shastri, Y. Fujiki, R. Buffington, P. Tsiamyrtzis, and I. Pavlidis (2010), "O job, can you return my mojo? Improving human engagement and enjoyment in routine activities", Proceedings of the 2010 ACM Conference on Human Factors in Computing Systems (CHI), Atlanta, Georgia, April, 2010.
- C14. Y. Zhou, P. Tsiamyrtzis, and I. Pavlidis (2009), "Tissue tracking in thermophysiological imagery through spatio-temporal smoothing", Proceedings of International Conference on Medical Image Computing and Computer Assisted Intervention MICCAI 2009, Lecture Notes in Computer Science, vol. 5762, pp. 1092-1099, London, United Kingdom, September 2009.
- C13. Y. Fujiki, P. Tsiamyrtzis, and I. Pavlidis (2009), "Making sense of accelerometer measurements in pervasive physical activity applications", Ext. Abstract of the 2009 ACM Conference on Human Factors in Computing Systems (CHI), Boston, Massachusetts, April, 2009.

- C12. Y. Zhou, P. Tsiamyrtzis, and I. Pavlidis (2008), "A probabilistic template update method for tracking facial tissue in thermal infrared", Proceedings of the 5th IEEE International Conference on Advanced Video and Signal Based Surveillance, Santa Fe, New Mexico, USA, September 1-3, 2008.
- C11. Z. Zhu, P. Tsiamyrtzis, and I. Pavlidis (2008), "The segmentation of the supraorbital vessels in thermal imagery", Proceedings of the 5th IEEE International Conference on Advanced Video and Signal Based Surveillance, Santa Fe, New Mexico, USA, September 1-3, 2008.
- C10. D. Shastri, P. Tsiamyrtzis, and I. Pavlidis (2008), "Periorbital thermal signal extraction and applications", Proceedings of the 30th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Vancouver, British Columbia, pp. 102-105, August, 2008.
- **C09.** D. Shastri, A. Merla, P. Tsiamyrtzis, and I. Pavlidis (2007), "Imaging facial signs of neuro-physiological responses", Proceedings of the 10th International Conference on Medical Image Computing and Computer-Assisted Intervention-MICCAI, Brisbane, Australia, October 29 November 2, 2007.
- **C08.** Z. Zhu, P. Tsiamyrtzis, and I. Pavlidis (2007) "Forehead thermal signature extraction in lie detection", Proceedings of the 29th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, pp. 243-246, Lyon, France, August 23-26, 2007.
- **C07.** P. Buddharaju, I. Pavlidis and P. Tsiamyrtzis, (2006) "Pose-invariant physiological face recognition in the thermal infrared spectrum", Proceedings of the 2006 IEEE Conference on Computer Vision and Pattern Recognition, pp. 53-60, New York, June 17-22, 2006.
- **C06.** J. Dowdall, I. Pavlidis, and P. Tsiamyrtzis, (2006), "Coalitional tracking in facial infrared imaging and beyond", Proceedings of the 2006 IEEE Conference on Computer Vision and Pattern Recognition, pp. 134-141, New York, June 17-22, 2006.
- **C05.** P. Buddharaju, I. Pavlidis, and P. Tsiamyrtzis, (2005), "Physiology-Based Face Recognition", in Proceedings of the IEEE International Conference on Advanced Video and Signal based Surveillance, pp. 354-359, Lake Como, Italy, September 15-16, 2005.
- **C04.** P. Buddharaju, J. Dowdall, P. Tsiamyrtzis, D. Shastri, I. Pavlidis, and M. G. Frank, (2005), "Automatic THErmal Monitoring System (ATHEMOS) for Deception Detection", in Video Proceedings of the IEEE Computer Society Conference on Computer Vision and Pattern Recognition, pp 53, San Diego, CA, June 20-25, 2005.
- C03. P. Tsiamyrtzis, J. Dowdall, D. Shastri, I. Pavlidis, M.G. Frank, and P. Ekman, (2005), "Lie Detection Recovery of the Periorbital Signal Through Tandem Tracking and Noise Suppression in Thermal Facial Video", in Proceedings of SPIE Sensors, and

- Command, Control, Communications, and Intelligence (C3I) Technologies for Homeland Security and Homeland Defense IV, editor: E. M. Carapezza, Vol. 5778, pp. 555-566, Orlando, FL, March 29-31, 2005.
- C02. R. Murthy, I. Pavlidis, and P. Tsiamyrtzis, (2004), "Touchless Monitoring of Breathing Function", in Proceedings of the 26th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Vol. 2, pp. 1196-9, San Francisco, CA, September 1-5, 2004.
- C01. P. Tsiamyrtzis, D. M. Hawkins and S. Tatini, (2000) "Statistical Analysis of Salmonellosis Outbreak Data", in Proceedings of the American Statistical Association (ASA), Section on Statistics and the Environment, pp.62-67, Indianapolis, IN, August 13-17, 2000. ("First Prize of A.S.A. Student Paper Award" and "Best Contributed Paper Award").

## Papers at Abstract Based Conferences

- A3. P. Tsiamyrtzis and D. M. Hawkins, (2005), "A Bayesian Method to Detect Early Mean Shifts in an Autoregressive Process", in Proceedings of the American Statistical Association (ASA), Section on Quality and Productivity, pp. 1859-1863, Minneapolis, MN, August 7-11, 2005.
- A2. R. Murthy, I. Pavlidis, and P. Tsiamyrtzis, (2005), "Touchless Monitoring of Breath Function", in Abstracts of the 22nd Annual Houston Conference on Biomedical Engineering Research, Houston, TX, February 10-11, 2005.
- A1. P. Tsiamyrtzis, J. Dowdall, D. Shastri, I. Pavlidis, M. G. Frank, and P. Ekman, (2005), "Lie detection: recovery of the periorbital signal through tandem tracking and noise suppression in thermal facial video", in Abstracts of the 22nd Annual Houston Conference on Biomedical Engineering Research, Houston, TX, February 10-11, 2005.

#### **Editorial Work:**

Review Editor for Frontiers (http://www.frontiersin.org/) an online, open access publishing group: http://community.frontiersin.org/people/PanagiotisTsiamyrtzis/56886

#### **Citations**

Public profile in google scholar:

http://scholar.google.com/citations?user=whp6ZwcAAAAJ&hl=en

In April 2015, google scholar reported >900 citations.

### **Teaching Experience**

1. 2002 – today: Athens University of Economics and Business, Dept. of Statistics

Position: Lecturer

*Undergraduate Courses:* 

- o Introduction to Linear Regression
- Bayesian Statistics
- Multivariate Statistical Methods
- o Introduction to Programming with R/Splus

M.Sc. Courses:

- Statistics for Business Analytics
- Mathematical Statistics
- Linear Models for Data Analysis I & II
- o Bayesian Statistics with applications to Medicine
- Linear Regression
- Analysis of Variance
- 2. 2003 2014: Hellenic Open University, Dept. of Business Administration

Position: Counselor/Instructor (Distance Learning)

Undergraduate Course:

- Quantitative Methods
- **3. 2014:** Specialization program in "Big Data and Business Analytics", Athens University of Economics and Business (Dept. of Management Science and Technology)

Course: Statistics for Data Analytics

**4. 2004, 2006:** Joint M.Sc. Program in Biostatistics, National and Kapodistrian University of Athens (Medical School and Dept. of Mathematics) and University of Ioannina (Dept. of Mathematics)

Position: Lecturer M.Sc. Course:

- Bayesian Statistics
- **5. 2000:** University of Minnesota, School of Statistics, Twin Cities, U.S.A.

Position: Visiting Assistant Professor

Undergraduate Courses:

- Introduction to Statistics
- Introduction to Probability and Statistics
- 6. 1999 2000: University of Minnesota, School of Statistics, Twin Cities, U.S.A.

Position: Instructor

*Undergraduate Course:* 

o Introduction to Statistical Analysis

M.Sc. Course:

o Applied Linear Regression

7. 1996 – 1999: University of Minnesota, School of Statistics, Twin Cities, U.S.A.

Position: Teaching Assistant Undergraduate Courses:

- o Introduction to Statistics
- Introduction to Statistical Analysis
- Data Analysis

M.Sc. Courses:

- Applied Linear Regression
- Design of Experiments
- Statistical Methods for Quality Improvement

# Participation in Grants as Principal Investigator or Senior Scientific Advisor

1. Grant: "Bayesian Statistical Process Control for fraction non-conforming"

**Principal Investigator:** Panagiotis Tsiamyrtzis

**Sponsor:** Basic Research Funding Program, 2010-11, AUEB.

2. Grant: "Bayesian Statistical Process Control for Count Type Data"

**Principal Investigator:** Panagiotis Tsiamyrtzis

Sponsor: Basic Research Funding Program, 2009-10, AUEB.

**3. Grant:** "ATHEMOS – Advanced Technology Development"

Principal Investigator: Ioannis Pavlidis

Sponsor: Defense Academy for Credibility Assessment (DACA), Department of

Defense, USA.

**Description:** The goal of this project was to perform research that would improve facial tissue tracking in thermal infrared, develop tracking error estimation methods, include novel psycho-physiological channels in lie detection, pursue an aggressive program of experimental investigation, and revamp the ATHEMOS software infrastructure.

**4. Grant:** "Interacting with Human Physiology"

**Principal Investigator:** Ioannis Pavlidis

Sponsor: National Science Foundation (NSF), USA

**Description:** The project aims to add a new dimension in human-computer interaction (HCI), namely, to monitor the physiology of computer users on a continuous basis and take appropriate actions when warranted. The project aspires to use the abundant computing resources at home and the office in combination with novel sensing, algorithmic, and interface methods to enhance the user's experience and at the same time create a new preventive medicine paradigm.

### **Synergistic Activities**

- 1. Program Area Chair (Tracking), of the "5th IEEE International Conference on AVSS" (Advanced Video and Signal Based Surveillance), Santa Fe, New Mexico, USA, September 2008.
- 2. Member of the scientific committee of the 8th annual conference of the European Network for Business and Industrial Statistics (ENBIS), September 2008, Athens, Greece.
- **3.** Member of the organizing committee of the 8th annual conference of the European Network for Business and Industrial Statistics (ENBIS), September 2008, Athens, Greece.
- **4.** Member of the organizing committee of the 17th annual conference of the Hellenic Statistical Institute (HSI), April 2004, Lefkada, Greece.

### Refereeing Service (in alphabetic order): 57 manuscripts

- 1. Applied Optics (1)
- 2. BMC Medical Imaging (1)
- 3. Communications in Statistics Simulation and Computation (1)
- **4.** Computational and Mathematical methods in Medicine (1)
- **5.** Computer and Industrial Engineering (1)
- **6.** Computer Vision and Image Understanding (2)
- 7. European Journal of Operational Research (1)
- **8.** Forensic Science International (1)
- **9.** Frontiers in Human Neuroscience (1)
- **10.** Health Services and Outcomes Research Methodology (2)
- **11.** Hellenic Institute of Statistics (1)
- **12.** IEEE Computer Society Workshop on Biometrics (1)
- 13. IEEE International Conference on Advanced Video and Signal Based Surveillance (12)
- **14.** IEEE Transactions on Image Processing (1)
- **15.** IEEE Transactions on Information Forensics and Security (1)

- **16.** IEEE Transactions on Information Technology in BioMedicine (1)
- 17. IEEE Transactions on Pattern Analysis and Machine Intelligence (1)
- **18.** IIE Transactions (1)
- **19.** International Journal of Pattern Recognition and Artificial Intelligence (1)
- **20.** International Journal of Production Research (5)
- **21.** Journal of Quality Technology (3)
- **22.** Measurement Science and Technology Institute of Physics (2)
- **23.** Metron (1)
- **24.** National Science Foundation (1)
- **25.** Optimization (1)
- **26.** Quality Engineering (2)
- **27.** Quality Technology and Quantitative Management (3)
- 28. Scientia Iranica (1)
- **29.** Statistics and Computing (1)
- **30.** Technometrics (4)
- **31.** TEST (1)

#### Short courses

1. "An Introduction to Bayesian Statistical Process Control", 2014 Joint Research Conference, University of Washington, Seattle, WA, USA, June 23, 2014 (<a href="http://asa-qprc.org/2014/www.jrc2014.org/short-courses.html">http://asa-qprc.org/2014/www.jrc2014.org/short-courses.html</a>).

#### **Invited Talks**

- 1. "A Bayesian statistical process control approach in modeling count type data", Imaging Seminar, Department of Mathematics, University of Houston, May 04,2015.
- 2. "Bayesian Statistical Process Control for fraction non-conforming", 2013 International Symposium on Statistical Process Control (ISSPC3), Piraeus, Greece, July 09-11 2013.

- **3.** "Internal quality control monitoring from a Bayesian perspective", 2012 ECAT (External quality Control of diagnostic Assays and Tests), Leiden, Holland, November 07-09, 2012.
- **4.** "Fast by Nature How Stress Patterns Define Human Experience and Performance in Dexterous Tasks", HUB-Science events, public lecture, Oct. 2012, (http://www.thehubevents.gr/#/ell/events/science/anemoxerhdes)
- **5.** "Bayesian SPC for Autocorrelated Process that are Subject to Random Sized Jumps", 2012 Quality & Productivity Research Conference, California State University, Long Beach, CA, USA, June 4-7, 2012.
- **6.** Invited Session organizer (Bayesian Statistical Process Control), at the "2010 Joint Research Conference on Statistics in Quality, Industry, and Technology", National Institute of Standards and Technology (NIST), Gaithersburg, MD, USA, May 25–27, 2010.
- 7. "A Bayesian Approach in Modeling an Epidemic", Invited Talk at 2009 International Symposium on Statistical Process Control (ISSPC), Nantes, France, July 16-17 2009.
- **8.** "Bayesian SPC for Count Data", Invited Talk at 2009 Quality & Productivity Research Conference (QPRC), IBM T. J. Watson Research Ctr., Yorktown Heights, NY, USA, June 3-5, 2009.
- **9.** "Detection of Events for Threat Evaluation and Recognition", MSc Program in Information Systems, University of Macedonia, May 2003...
- 10. "A Cluster Based Approach in Combining MPN and Counting", The Eastern Regional Research Center of the Agricultural Research Service (ARS) of United States Department of Agriculture (USDA), Philadelphia, December 15, 2000.

### **Conference Presentations**

- 1. "Phase I management using Normal Predictive Control Charts", 2014 Joint Research Conference, University of Washington, Seattle, WA, USA, June 24-26, 2014.
- 2. "Bayesian Statistical Process Control for fraction non-conforming", 2013 International Symposium on Statistical Process Control (ISSPC3), Piraeus, Greece, July 09-11, 2013.
- **3.** "Internal quality control monitoring from a Bayesian perspective", 2012 ECAT (External quality Control of diagnostic Assays and Tests), Leiden, Holland, November 07-09, 2012.

- **4.** "Bayesian SPC for autocorrelated processes that are subject to random jumps", 2011 Quality & Productivity Research Conference (QPRC), Los Angeles, CA, USA, June 4-7, 2012.
- **5.** "A Bayesian Approach to Control Attributes", 2011 Joint Statistical Meetings, Miami, FL, U.S.A., July 30, August 4, 2011.
- **6.** "A Bayesian SPC approach in modeling count type data", 2011 Quality & Productivity Research Conference (QPRC), Roanoke Virginia, USA, June 8-10, 2011.
- 7. "Bayesian Statistical Process Control for Count Type Data", 28th European Meeting of Statisticians, Piraeus, Greece, August 17–22, 2010.
- **8.** "Controlling Attribute Type Data From a Bayesian Perspective", 2010 Joint Research Conference on Statistics in Quality, Industry, and Technology, National Institute of Standards and Technology (NIST), Gaithersburg, MD, USA, May 25-27, 2010.
- **9.** "Bayesian modeling for fraction nonconforming", 2009 European Network for Business and Industrial Statistics annual conference (ENBIS 9), Gothenburg, Sweden, September 20-24, 2009.
- **10.** "A Bayesian Approach to Model Shifts in Poisson Data", 2008 European Network for Business and Industrial Statistics annual conference (ENBIS 8), Athens, Greece, September 21-25, 2008.
- 11. "A Probabilistic Template Update Method for Tracking Facial Tissue in Thermal Infrared", 5th IEEE International Conference on Advanced Video and Signal Based Surveillance, Santa Fe, New Mexico, USA, September 1-3, 2008.
- **12.** "The Segmentation of the Supraorbital Vessels in Thermal Imagery", 5th IEEE International Conference on Advanced Video and Signal Based Surveillance, Santa Fe, New Mexico, USA, September 1-3, 2008.
- **13.** "Coalitional Tracking", First Athens Pavia Meeting in Statistics, Marathonas, Greece, June 3–6, 2008.
- **14.** "A Sequential Bayesian Control Model for Influenza-Like-Illnesses", 2008 Bayesian Biostatistics Conference, Houston, U.S.A., January 30 February 2, 2008.
- **15.** "A Bayesian EWMA Method to Detect Jumps at the Start-up Phase of a Process", ENBIS 7, Dortmund, September 24-26, 2007. (Winner of the "Best Talk Award")
- **16.** "A Bayesian Approach in Modeling Shifts of the Mean/Variance of Count Data", Joint Statistical Meetings, Seattle, U.S.A., August 5-10, 2006.
- 17. "A Bayesian Approach to Statistical Process Control", ISBA Eighth World Meeting on Bayesian Statistics, Valencia, Spain, June 1-6, 2006.

- **18.** "A Bayesian Method to Detect Early Mean Shifts in an Autoregressive Process", Joint Statistical Meetings, Minneapolis, U.S.A., August 7-11, 2005.
- **19.** "Touchless Monitoring of Breathing Function", 22nd Annual Houston Conference on Biomedical Engineering Research Huston, February 10 11, 2005.
- **20.** "Lie Detection: Recovery of the Periorbital Signal through Tandem Tracking and Noise Suppression in Thermal Facial Video", 22nd Annual Houston Conference on Biomedical Engineering Research Huston, February 10 11, 2005.
- **21.** "Exact Bayesian Inference for Bivariate Poisson Data", 19th International Workshop on Statistical Modeling, Florence, 04 08 July 2004.
- **22.** "Exact Bayesian Inference for Bivariate Poisson Data", 2nd International Workshop in Applied Probability, Piraeus, 22 25 March 2004.
- **23.** "Strategies for Efficient Computation of Multivariate Poisson Probabilities", Recent Advances in Statistical Designs and Related Combinatorics, Athens, 07 09 July 2003.
- **24.** "A Bayesian Segmentation Algorithm in D.E.T.E.R. (Detection of Events for Threat Evaluation and Recognition)", 16<sup>th</sup> annual conference of the Hellenic Statistical Institute (HSI), Kavala, 30 April 03 May 2003.
- **25.** "Segmentation and Tracking Algorithm for Visualization during MRI-Guided Ablative Thermal Therapy", 20th Annual Houston Conference on Biomedical Engineering Research, Houston, April 3-4, 2003.
- **26.** "Most Probable Number, Counting or Both?", 15<sup>th</sup> annual conference of the Hellenic Statistical Institute (HSI), Ioannina, 08-11 May 2002.
- **27.** "Bayesian Quality Control", 14<sup>th</sup> annual conference of the Hellenic Statistical Institute (HSI), Skiathos, 18-21 April 2001.
- **28.** "Statistical Analysis of Salmonellosis Outbreak Data", Joint Statistical Meetings, Indianapolis, August 13-17, 2000. ("First Prize of A.S.A. Student Paper Award" and "Best Contributed Paper Award")
- **29.** "A Bayesian Approach to the Short Run Problem", Joint Research Conference, Seattle, June 26-28, 2000.

# **Professional Memberships**

- 1. Member of the American Statistical Association (ASA)
- 2. Member of the American Society for Quality (ASQ)

- 3. Member of the Bernoulli Society (BS)
- **4.** Member of the Institute of Mathematical Statistics (IMS)
- **5.** Member of the International Society for Bayesian Analysis (ISBA)
- **6.** Member of the International Statistical Institute (ISI)
- 7. Member of the European Network for Business and Industrial Statistics (ENBIS)
- **8.** Member of the Hellenic Statistical Institute (HSI)

#### M.Sc. students

- 1. C. Seizi, "On Divergence between Distribution Functions", Dept. of Statistics, Athens University of Economics and Business, Full Time MSc in Statistics.
- **2.** E. Yiannopoulou, "A Bayesian approach in determining the optimal sample size for phase I data", Dept. of Statistics, Athens University of Economics and Business, Full Time MSc in Statistics.
- **3.** T. Nicolaou, "Spatial Statistics in Image Analysis", Dept. of Statistics, Athens University of Economics and Business, Full Time MSc in Statistics.
- 4. S. Patrinos, "Bioterrorism Surveillance Systems: An application to gastrointestinal infections" Joint M.Sc. Program in Biostatistics, National and Kapodistrian University of Athens (Medical School and Dept. of Mathematics) and University of Ioannina (Dept. of Mathematics).
- 5. B. Papathanasiou, "A Bayesian Statistical Process Control in modeling epidemics", Joint M.Sc. Program in Biostatistics, National and Kapodistrian University of Athens (Medical School and Dept. of Mathematics) and University of Ioannina (Dept. of Mathematics).
- 6. S. Rafail, "Bayesian approach to Kalman Filter for applications to Meteorology", Dept. of Statistics, Athens University of Economics and Business, Full Time MSc in Statistics.
- 7. G. Basta, "Biosurveillance Systems: A Bayesian Decision Making Approach", Joint M.Sc. Program in Biostatistics, National and Kapodistrian University of Athens (Medical School and Dept. of Mathematics) and University of Ioannina (Dept. of Mathematics).
- **8.** D. Kiagias, "Bayesian Statistical Process Control: Predictive Control Charts for discrete distributions in the regular exponential family", Dept. of Statistics, Athens University of Economics and Business, Full Time MSc in Statistics.
- **9.** K. Bourazas, "Bayesian Statistical Process Control: Predictive Control Charts for Continuous Distributions in the Regular Exponential Family", Dept. of Statistics, Athens University of Economics and Business, Full Time MSc in Statistics.
- **10.** M. Douli, "Recommendation Systems: A Content Based Collaboration Filter Approach", Dept. of Statistics, Athens University of Economics and Business, Part Time MSc in Statistics.

- 11. G. Vlassis, "A review of methods used to estimate the central subspace in studying the conditional distribution of y|x in regression", Dept. of Statistics, Athens University of Economics and Business, Part Time MSc in Statistics.
- **12.** R. Christopoulou, "Discovering the structural dimension in regression problems", Dept. of Statistics, Athens University of Economics and Business, Part Time MSc in Statistics.
- **13.** P. Douva, "Linear Profiles for Phase I data: a review", Dept. of Statistics, Athens University of Economics and Business, Part Time MSc in Statistics.
- **14.** V. Vriniotis, "Sentiment Analysis using Statistical Methods", Dept. of Statistics, Athens University of Economics and Business, Part Time MSc in Statistics.

#### **Committee Member in PhD examination**

- 1. "Tracking Tissue in Thermal Infrared Video", Jonathan Dowdall, Department of Computer Science, University of Houston, advisor: Ioannis Pavlidis.
- 2. "Measurement of Facial Physiology for Lie Detection", Dvijesh Shastri, Department of Computer Science, University of Houston, advisor: Ioannis Pavlidis.
- **3.** "Physiology-Based Face Recognition in the Thermal Infrared Spectrum", Pradeep Buddharaju, Department of Computer Science, University of Houston, advisor: Ioannis Pavlidis.
- **4.** "Breathing Computation through Thermal Imaging", Jin Fei, Department of Computer Science, University of Houston, Advisor: Ioannis Pavlidis.
- **5.** "Applications of Thermal Imaging in Psychology and Medicine", Zhen Zhu, Department of Computer Science, University of Houston, Advisor: Ioannis Pavlidis.
- **6.** "Physical Activity Patterns of Humans Monitoring, Modeling, and Intervening", Yuichi Fujiki, Department of Computer Science, University of Houston, Advisor: Ioannis Pavlidis.
- 7. "Deformable Collaborative Tracking Across Imaging Modalities", Yan Zhou, Department of Computer Science, University of Houston, Advisor: Ioannis Pavlidis.
- **8.** "Rank and quantile regression", Zoe Tsourti, Department of Statistics, Athens University of Economics and Bossiness, Advisor: Petros Dellaportas.
- **9.** "Development and study of synthetic diagrams in statistical process control to monitor the mean and variance", University of West Macedonia, Advisor: George Nenes.

#### References

Available upon request