

David Afshartous
UNIVERSITY OF MIAMI
Curriculum Vitae

1. Date: April 2009

PERSONAL

2. Name: David Afshartous
3. Office Phone: 305-243-1549
5. Current Academic Rank: Research Assistant Professor
7. Primary Department: Medicine; Division of Clinical Pharmacology
8. Secondary or Joint Appointments: N/A
9. Citizenship: USA
10. Visa Type (if non-citizen):

HIGHER EDUCATION

11. Institutional (institution; degree; date conferred):
 - University of California, Los Angeles; Ph.D. (Mathematics/Statistics), 12/97
 - Massachusetts Institute of Technology; M.S. (Political Science), 12/90
 - Massachusetts Institute of Technology; B.S. (Mathematics), 6/89
12. Non-Institutional (description; dates):
 - Lucent Technologies 5ESS Academy; 10-11/97
13. Certification, licensure (description; board or agency; dates):

EXPERIENCE

14. Academic (institutions; rank/status; dates):
 - University of Miami Miller School of Medicine: Division of Clinical Pharmacology, Department of Medicine, Research Assistant Professor, 7/07 to present.
 - University of Miami School of Business, Department of Management Science, Assistant Professor, 9/02 to 7/07.
 - University of California, Los Angeles: Department of Mathematics, Graduate Teaching and Research Assistant for a variety of courses including Introduction to Statistics, Mathematical Statistics, Winter 1994 – Spring 1997.
 - University of California, Los Angeles: Department of political science, Graduate Teaching Assistant, fall 1991 – fall 1993.
 - Julia Richman High School, New York City: Mathematics Teacher, 1990-1991.
 - Massachusetts Institute of Technology: Department of Mathematics, Grader for Calculus and Differential Equations courses, 1988 – 1989.
 - Massachusetts Institute of Technology: Minority Introduction to Engineering and Science Program, Teaching Assistant for Calculus (1989) and Writing (1990).

15. Non-Academic (employers; title; responsibilities; dates):
- Lucent Technologies (London, U.K.): 3rd Generation (3G) Wireless (UMTS) Standards Delegate. Location Technology methods, Radio Resource Management (RRM), Quality of Service; April 2001 – August 2002.
 - Lucent Technologies (London, U.K.): 3G Wireless Systems Engineer, Packet Core Network; Mobility Management, Session Management, Quality of Service (QoS), Overload Control; March 2000 – April 2001.
 - Lucent Technologies (Naperville, IL): Network Traffic Management Systems Engineer; Overload control, packet data traffic behavior; Oct 1997 – Mar 2000.
16. Military (branch; rank; responsibilities; dates):
- United States Naval Academy; Midshipman 4th Class; 1985 – 1986.

PUBLICATIONS [author(s) (in actual precedence of authorship); title; publisher or journal name; date (current year first); page numbers]

17. Books and monographs published:

18. Juried or refereed journal articles and exhibitions:

(i) Refereed journal:

1. Preston, R.A., Afshartous, D., Garg, D., Medrano S., Alonso A, Rodriguez, R. (2009). “Mechanisms of impaired potassium handling with dual renin-angiotensin-aldosterone blockade in chronic kidney disease.” *Hypertension*, vol. 53, 754-760.
2. Afshartous, D., and Preston, R.A. (2009). “Recursive estimation method for predicting residual bladder urine volumes to improve accuracy of timed urine collections,” *Statistical Methods for Medical Research*, vol. 18(2), 119-130.
3. Afshartous, D., Guan, Y., Mehrotra, A. (2009). “U.S. Coast Guard air station location with respect to distress calls: A spatial statistics and optimization based methodology, *European Journal of Operational Research*, vol. 196(3), 1086-1096.
4. Preston, R.A., Afshartous, D., Alonso A.B., Epstein, M. (2008). “Randomized Trial of the Effects of Selective versus Nonselective Cyclooxygenase Inhibition on Dynamic Renal Potassium Excretion, *Journal of Clinical Pharmacology and Therapeutics*, vol. 84(2), 208-211.
5. Afshartous, D. (2008). Sample size determination for binomial proportion confidence intervals -- an alternative perspective motivated by a legal case,” *The American Statistician*, vol. 62, 27-31.
6. Afshartous, D. and Wolf, Michael (2007). “Avoiding Data Snooping in Mixed and Multilevel Models,” accepted, *Journal of the Royal Statistical Society, Series A*, vol. 170, 1035-1059.
7. Afshartous, D. and Michailidis, George (2007). “Distributed Multilevel Modeling,” *Journal of Computational and Statistical Graphics*, vol. 16 (4), 901-924.
8. Guan, Y., Afshartous, D. (2007), “Test for independence between marks and points of marked point processes, *Ecological and Environmental Statistics*, vol. 14 (2), 101-111.

9. Afshartous, D., de Leeuw, Jan (2005). "A Predictive Density Approach to Predicting Future Observables in the Multilevel Model," *Journal of Statistical Planning and Inference*, vol. 128, 149-164.
10. Afshartous, D., de Leeuw, Jan (2005). "Prediction in Multilevel Models," *Journal of Educational and Behavioral Statistics*, vol. 30 (2), 109-139.
11. Afshartous, D., de Leeuw, Jan (2005). "A Decomposition of Prediction Error for the Multilevel Model," *Communications in Statistics – Simulation and Computation*, vol. 34 (4) .
12. Afshartous, D., de Leeuw, Jan (2004). "An Application of Multilevel Model Prediction to NELS:88," *Behaviormetrika*, vol. 31 (1), 43-66.

(ii) Refereed proceedings:

13. Teck, H., Afshartous, D., and Young, G. (2004). "Resequencing Performance for N-SAW in UMTS HSDPA," *Proceeding of the 2004 World Wireless Congress*, San Francisco, CA, May 2004.
14. Afshartous, D., Guan, Y., Mehrotra, A., and Magnussen, J. (2004). "Optimal Deployment of Resources for the U.S. Coast Guard," *Proceedings of the 10th International Conference on Productivity and Quality Research*, Miami, FL, Feb 2004.
15. Afshartous, D. (1995), "Determination of Sample Size for Multilevel Model Design," *Perspectives on Statistics for Educational Research: Proceedings of the National Institute for Statistical Sciences (NISS)*, Technical Report #35, edited by V.S. Williams, L.V. Jones, and I. Olkin.

19. Other works, publications and abstracts:

(i) Articles submitted to refereed journals:

- Afshartous, D., Verbeke, G., Preston, R.A. (2009). "Mixed Effects and Multilevel Models in the Presence of Random Effects Variance Heterogeneity." Submitted to *Statistical Methods for Medical Research*.
- Afshartous, D., Preston, R.A. (2009). "Confidence Intervals for Dependent Data in Clinical Trials: equating overlap with significance." Submitted to *Computational Statistics and Data Analysis*.
- Afshartous, D. (2009). Key results of interaction models with centering. Submitted to *Multivariate Behavioral Research*.
- Afshartous, D., Michailidis, G. (2008). "Matrix Innovations for Statistical Analyses of Hierarchical Distributed Databases." Submitted to *Computational Statistics and Data Analysis*.

(ii) Work in Progress:

- Afshartous, D., Verbeke, G. Preston, R.A. (2009). "Multivariate Mixed-effects Models with Dynamic Covariance Structure."

- Preston, R.A., Afshartous, D. (2009). “GI-renal mechanism for enhancing potassium excretion”
- Preston, R.A., Dong, C., Zhu, S., Gonzalez, M., Afshartous, D.(2009). “Cross-sectional pilot study of endothelial progenitor cells (EPCs) in high risk patients with uncontrolled severe hypertension.”
- Preston, R.A., Afshartous, D., Materson, B.J. (2009). “Comparative effects of Nebivolol versus placebo on sodium sensitivity of blood pressure in Hispanic postmenopausal women with hypertension.”
- Preston, R.A., Afshartous, D., Lenz, O., Reiser, J. (2009). “Effects of dietary supplement L-Glutamine on 24-hour urine protein excretion in patients with proteinuric renal disease.”
- Preston, R.A., Afshartous, D. (2009). “Investigation of a gastrointestinal-renal natriuretic signaling axis in healthy human volunteers: roles of prouroguanylin and uroguanylin.

(iii) Patents:

- Afshartous, D., Preston, R.A. (2008). “U.S. patent application serial number 61/028,640, Recursive estimation method for predicting residual bladder urine volumes to improve accuracy of timed urine collections” (pending approval)
- Afshartous, D., Qiang Cao, and Gordon Young (2002). “European Patent No. 02253221.2: Sequence Number Checking in Communicating Messages in a Universal Mobile Telecommunications (UMTS) Network.”

(iii) Other articles:

- Afshartous, D., Hilden-Minton, J. (1996), “TERRACE-TWO: An X-LISPSTAT software package for estimating multilevel models, User’s guide,” U.C.L.A. Department of Statistics Technical Report.
- Afshartous, D. (2001), “A Guide to UMTS Handovers,” Lucent internal technical report for development and system testing.
- Afshartous, D. (2000), “Overload Control Strategies for UMTS, Network Level and Node Element Level,” Lucent internal report.
- Afshartous, D., Lauer, B., and Michailidis, G. (1999). “LAN Packet Data Analysis,” Lucent internal technical report.

19. Other works accepted for publication:

PROFESSIONAL

20. Funded Research Performed (include all grants received in the last five years, identifying the principal investigator and the amounts and dates of the awards):

- National Institute of Statistical Sciences (NISS), Multilevel Modeling of National Educational Longitudinal Study of 1988 (NELS:88) data, P.I. Jan de Leeuw, 1995-1997.

- Lucent Technologies Dept. #10001107 Grant , Packet Data Analysis Project, along with Dr. B. Lauer and Dr. G. Michailidis, P.I. David Afshartous, 1998-1999.
- MacLamore Summer Research Grant, Resequencing Performance for 3rd Generation Wireless, P.I. David Afshartous, summer 2004.
- MacLamore Summer Research Grant, Avoiding Data Snooping in Mixed and Multilevel Models, P.I. David Afshartous, summer 2006.

Pending applications:

- Stanley J. Glaser Research Support Grant, Afshartous, D (P.I.), Preston, RA (C.I.) (2008), “Development of Predictive Mixed Effects Models in the Presence of Random Effects Heterogeneity: Mathematical Modeling and Prediction of Renal Potassium Excretion
- National Institute of Health, RC1 Challenge Grant, Enhancing Clinical Trials 104 (07-DK-101), Afshartous, D (P.I.), Preston, RA (C.I.), Verbeke, G (C.I.) “Multivariate Mixed-effects Models with Dynamic Covariance Structure.”

22. Editorial responsibilities:

23. Professional and Honorary Organizations (member; officer; date):

- American Statistical Society; member; 1993 – present.
- National Geographic Society, member; 1997 – present.

24. Honors and Awards:

- University of California, Los Angeles, Pauley Graduate Fellow
- Best Ph.D. Qualifying Exam Paper, Dept. of Political Science, U.C.L.A, 1993.

25. Post-Doctoral Fellowships:

25. Other Professional Activities (e.g., papers presented; performances; conference proceedings; seminar or conference panel member; catalogue work; etc.):

- Delegate at 2008 International Biometrics Conference, Dublin, Ireland, Jul 2008.
- Delegate at 2007 FDA-Industry Statistics Workshop, Arlington, VA, Sep 2007.
- Presented a paper at Joint Statistical Meetings, Salt Lake City, UT, Aug 2007.
- Presented a paper at the Sixth International Amsterdam conference on Multilevel Analysis, Amsterdam, Apr 2007.
- Presented a paper at Institute of Mathematical Statistics annual meeting, Rio de Janeiro, Brazil, Aug 2006.
- Presented a paper at Joint Statistical Meetings, San Francisco, CA, 2003.
- Presented a paper at Joint Statistical Meetings, Baltimore, MD, 1999.
- Presented a paper at Joint Statistical Meetings, Dallas, TX, 1998.
- Presented a paper at Joint Statistical Meetings, Anaheim, CA, 1997.
- Presented a paper at American Educational Research Association (AERA), San Francisco, CA, 1995.

- Presented an invited paper at Perspectives on Statistics for Educational Research workshop, the National Institute for Statistical Sciences (NISS), Research Triangle Park, NC, 1995.
- Delegate, 3rd Generation Partnership Project, Radio Access Network Work Group 2
 - Pusan, Korea, May 2001.
 - Berlin, Germany, Jul 2001.
 - Helsinki, Finland, Aug 2001.
 - New York, NY, Oct 2001.
 - Makuhari, Japan, Nov 2001.
 - Sophia-Antipolis, France, Jan 2002.
 - Orlando, FL, Feb 2002.
 - Kobe, Japan, Apr 2002.
 - Gyeongju, Korea, May 2002.
 - Turin, Italy, Jul 2002.
- Delegate, International Telecom Union (specialized agency of United Nations) meeting, Subgroup Group 2 (Network Traffic Management), Geneva, Switzerland, Oct 1998.
- Referee for *Journal of Official Statistics*
- Referee for *Scandinavian Journal of Statistics*
- Referee for *The American Statistician*
- Referee for INFORMS Annual Meeting

TEACHING

26. Teaching Awards Received:
- Nomination for 2005 Excellence in Teaching Award
28. Teaching Specialization (courses taught):
- MAS 201 (Introduction to Business Statistics I; regular undergrad and honors)
 - MAS 202 (Introduction to Business Statistics II)
 - MAS 612 (Advanced Quantitative Analysis),
 - MAS 637 (Applied Regression Analysis and Forecasting)
 - MAS 631 (Statistics for Managerial Decision-making; working professionals and regular MBA)
29. Thesis and Dissertation Advising/Post-doctoral student supervision (chairman or committee member; topic; student name; date):

SERVICE

30. University Committee and Administrative Responsibilities:

- 16. Member, MAS/MAN Speaker Series Committee 2004-2006
- 17. Member, MAS Faculty Recruitment Committee 2002-2007
- 18. Member, MAS Committee on Graduate Programs 2002-2007
- 19. Coordinator, MAS Committee to Standardize MAS Undergraduate Statistics 2005

31. Community Activities:

- 20. Founder and coach, Track Club Miami (www.trackclubmiami.com)