# Julio L. Peixoto, Ph.D.

Curriculum Vitæ

### **STATISTICIAN**

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#### **PROFESSIONAL SKILLS:**

- Extensive R&D, teaching, and consulting experience in statistical theory and methods, including: design and analysis of statistical experiments (DOE), reliability, statistical quality control, probability and stochastic models, regression analysis, multivariate statistics, sampling, general quantitative methods.
- Recent work in the aerospace industry, rich in diverse and complex problems, has led to other areas such as data mining, design and analysis of computer experiments, and statistical tolerancing.
- Proficient in the use of several computer systems and statistical packages (SAS, JMP, MINITAB, R, Design Expert, Data Analysis with Excel), and other software. Has been teaching statistical computations for more than 20 years.
- → Ph.D. IN STATISTICS, Iowa State University. Grade Point Average: 4.00 (A=4.00) Thesis: "Estimation of Random Effects in the Balanced One-Way Classification" (supervised by Prof. David A. Harville).
- → M.S. IN STATISTICS, Iowa State University. Grade Point Average: 3.93 (A=4.00) Thesis: "An Econometric Model for Uruguayan Wheat, Sunflower, and Corn Acreage" (supervised by Prof. J. Jeffery Goebel)
- → M.S IN ECONOMICS (ECONOMISTA), Universidad de la República, Uruguay.

#### **EDUCATION:**

- Thesis: "Estudios Econométricos Sobre Algunos Cultivos Agrícolas" (supervised by Prof. Ariel Davrieux).
- LEAN SIX SIGMA BLACK BELT, ADVANCED MASTER CERTIFICATE, Villanova University, 2009.
- CONTINUING EDUCATION. Courses in Repeated Measures Methodology, SAS, Clinical Trials, and others.
- Courses in Economics and Mathematics, University of Chicago, Department of Economics.

## **PROFESSIONAL EXPERIENCE:**

- → SENIOR STATISTICIAN, Applied Statistics Group. The Boeing Company, Seattle, WA. Responsibilities: Instructor, consultant, research analyst with services offered to the entire company, all over the world (has worked in the Seattle area, St. Louis, southern California and other Boeing US locations; multiyear collaboration with Boeing Madrid; consultant to Boeing providers in Japan – among others). Has worked in many commercial and military aerospace projects. Has worked with the International Civil Aviation Organization (ICAO) and the Federal Aviation Administration (FAA). Main areas: Design and Analysis of Experiments (DOE), Reliability, Quality Control, Regression, Statistical Modeling, Air Traffic Management Statistics, other Statistical Methods. Theory and applications to the aerospace industry. In charge of statistical training program offered company-wide. From January 2001 to present.
- → PROFESSOR (Associate, Assistant), <u>Department of Decision and Information Sciences</u>, Bauer School of Business, University of Houston (UH). Responsibilities: research, graduate teaching, consulting, supervision of Ph.D. students. Courses taught: Business Statistics, Regression Analysis, Multivariate Statistical Methods, Linear Models, Design and Analysis of Experiments. (1982 to 2000, Visiting Assistant Professor in 1982. Assistant Professor sor from 1983 to 1989. Promoted to Associate Professor with Tenure in 1989. Also, see my web page at UH.)
- ASSOCIATE PROFESSOR OF STATISTICS, Madrid Business School (MBS), Madrid, Spain. (MBA international program jointly organized by MBS and UH.) Assigned by the College of Business Administration, University of Houston. Responsibilities:

research and teaching of Business Statistics and Mathematics. [Spring semesters (January-June) of 1989 and 1990.]

- ➔ STATISTICAL CONSULTANT
  - Actuarial Research Group (Now <u>Myron</u> <u>Steves Insurance Solutions</u>) Responsibilities: statistical modeling and analysis for legal litigation (1999, 2000).
  - <u>W.J. Murray and Assoc</u>. Responsibilities: statistical modeling of oil-lubricant engine tests, experimental designer, (1997 to 2000 — although still available as one of its researchers).
  - <u>InterAmerican Development Bank</u>. Responsibilities: consulting in a project for privatization of public enterprises in Nicaragua (1992 and 1993).
  - Practical Tank Management, Houston, TX. Responsibilities: assist in research and development of Statistical Inventory Reconciliation to use as a method of leak detection and prediction in underground fuel storage tanks (1993 to present).
  - <u>Gelb Consulting Group Inc.</u>, Houston, TX. Responsibilities: design and analysis of a nationwide survey of restaurants and other eating places (1991).
  - <u>Centro de Investigaciones Económicas</u> (*CINVE*), Montevideo, Uruguay. Responsibilities: statistical consulting in a research on the profitability of new technologies in the cattle-growing industry of Uruguay (1979).
- → STATISTICIAN, Ministerio de Economía y Finanzas (Ministry of the Economy and Finances), Montevideo, Uruguay. Responsibilities: to advise the Minister of the Economy in statistical and econometric matters. (From 1976 to 1978.)
- → TEACHING ASSISTANT, <u>Department of Statistics and Statistical Laboratory</u>, Iowa State University, Ames, Iowa. Responsi-

bilities: to teach undergraduate courses in Statistics. (From 1979 to 1982.)

- → TEACHING ASSISTANT at various levels, Facultad de Ciencias Económicas y de Administración, Universidad de la República, Montevideo, Uruguay. Responsibilities: to assist in the teaching of courses in Statistics, Econometrics, Operations Research, Macroeconomics, and Advanced Calculus. (From 1971 to 1976.)
- → RESEARCH ASSISTANT, Instituto de Estadística, Facultad de Ciencias Económicas y de Administración, Universidad de la República, Montevideo, Uruguay. Responsibilities: to assist in various statistical projects including a monthly consumer price index and an unemployment survey. (From 1973 to 1974.)

## **OTHER:**

	<b>PROFESSIONAL ACTIVITIES:</b>		HONORS:
Member of:		•	National Science Foundation grant, 1993
•	<i>American Statistical Association</i> (and its Houston area chapter)	•	Inter-American Statistical Institute grant, 1993
•	Inter-American Statistical Institute	•	Halliburton Research Award, 1989
•	Institute of Mathematical Statistics	•	Halliburton Research Award, 1988
•	Colegio de Contadores y Doctores en	•	Halliburton Research Award, 1986
	Ciencias Económicas del Uruguay	•	Elected to Phi-Kappa-Phi, Honor Society (1978)
Reviewer of articles for:		•	Flected to Mu-Sigma-Rho. Statistical Honor
•	Journal of the American Statistical Associa-		Society (1978)
	tion	•	Scholarship from the Agency for Internation-
•	The American Statistician		al Development (1977-1979)
•	Journal of Statistical Planning and Inference		LANGUAGES:
•	Biometrica	•	SPANISH: can read, understand, talk, and
•	Communications in Statistics		write very well (native language).
•	Linear Algebra and its Applications	•	ENGLISH: can read, understand, talk, and
•	Mathematical Reviews		write very well.
•	Technometrics	•	PORTUGUESE: can read and understand very well, talk and write well.
Listed in:		•	FRENCH: can read well.
•	The International Directory of Distinguished Leadership	•	ITALIAN: can read well.
•	International Leaders in Achievement		
•	Who's Who in American Education		
•	Who's Who in Technology Today		
•	Who's Who of Emerging Leaders in America		
•	Who's Who in the South and Southwest		

## **ADDENDA:**

## ADDENDUM A: PUBLICATIONS

#### JOURNAL ARTICLES (→) AND CONFERENCE PROCEEDINGS (•)

- Peixoto, J.L. (2009), "Estimating Lifetimes When Several Unidentified Components Are Reported", *Proceedings of the Physical and Engineering Sciences Section of the American Statistical Association, Joint Statistical Meetings*, Washington, DC, August 2009. (Click to see abstract.)
- Peixoto, J.L., Taam, W., and Lu, I. (2006), "Design of Experiments for Wind Tunnel Testing: an Application on Load Investigation", *Proceedings of the Section on Statisticians in Defense and National Security, American Statistical Association, Joint Statistical Meetings*, Seattle, WA, August 2006. (<u>Click to see abstract.</u>)
- Basu, S., Scholz, F., Peixoto, J.L., and Thompson, J. (2004), "Design and Analysis of Probability of Visual Detection for Surface Dents", *Proceedings of the Physical and Engineering Sciences Section of the American Statistical Association, Joint Statistical Meetings*, Toronto, Canada, August 2004. (<u>Click to see abstract.</u>)
- Lu, I., Peixoto, J.L., and Taam, W. (2003), "A Simultaneous Equation Model for Air Traffic in the New York Area", *Proceedings of the 2003 Air Transport Research Society (ATRS) World Conference.*, Toulouse, France. (<u>Click to see abstract.</u>) (Also in *Boeing Technical Report Series*, M&CT-Tech-01-009.)
- Peixoto, J.L. (2003), "Statistics in a Large Airplane Manufacturer", *Proceedings of the Physical and Engineering Sciences Section of the American Statistical Association, Joint Statistical Meetings*, San Francisco, CA, August 2003. (<u>Click to see abstract.</u>)
- Taam, W. and Peixoto, J.L. (2002), "Design and Analysis of Experiments with Continuous On-off Factors", *Section on Physical and Engineering Sciences, American Statistical Association, Spring Research Conference*, 3418-3423. (Click to read article.)
- → Kadipaşaoğlu, Ş.N., Peixoto, J.L., and Khumawala, B.M. (1999), "Global Manufacturing Practices: An Empirical Evaluation," *Industrial Management and Data Systems*, Vol. 99, No. 3, pp. 101-108. (<u>Click to obtain article</u>.)
- Kadipaşaoğlu, Ş.N., Peixoto, J.L. and Khumawala, B.M. (1999), "An Empirical Investigation into Tardiness and Its Causes in Machine Tools and Textile Industries", *Proceedings of the Annual Meeting of the Decision Sciences Institute*, New Orleans, LA, November 1999.
- Zalila, F., Kadipaşaoğlu, Ş.N., Peixoto, J.L. and Khumawala, B.M. (1999), "Tabu Search, Rollout Algorithms, and Beam Search Heuristic: Application for the Airline Gate Assignment Problem", 5<sup>th</sup> International Conference of the Decision Sciences Institute, Athens, Greece, July 4-7, 1999

- Wicks, A., Kadipaşaoğlu, Ş.N., Peixoto, J.L. and Khumawala, B.M. (1999), "A Comparison of Three General Purpose Algorithms to Tabu Search in the Facility Location Class of Combinatorial Optimization Problem", 5<sup>th</sup> International Conference of the Decision Sciences Institute, Athens, Greece, July 4-7, 1999.
- Kadipaşaoğlu, Ş.N., Peixoto, J.L. and Khumawala, B.M. (1999), "An Investigation into the Determinants of Customer Service: An Empirical Evaluation", *Proceedings of the 15<sup>th</sup> Pan Pacific Conference*, Nadi, Fiji, May 31-June 2, 1999.
- Kadipaşaoğlu, Ş.N., Peixoto, J.L. and Khumawala, B.M. (1998), "Global Manufacturing Practices: An Empirical Investigation", *Production Operations Management Society South Africa Meeting*, Cape Town, South Africa, June 1998.
- Kadipaşaoğlu, Ş.N., Arostegui, M.A., Zalila, F., Peixoto, J.L. and Khumawala, B.M. (1998), "Job-Shop Scheduling: Applications of Tabu Search, Simulated Annealing, Genetic Algorithms And Beam Search", *Proceedings of the Euro Working Group on Project Management and Scheduling*, Istanbul, Turkey, July 1998.
- Cáceres, M.A. and Peixoto, J.L. (1997), "Ranking in Unbalanced Sports Tournaments with Home-Team Advantage and Nonsymmetric Scores — A Nonparametric Approach", *Proceedings of the Statistics in Sports Section of the American Statistical Association, Joint Statistical Meetings*, Anaheim, August 1997.
- Peixoto, J.L. (1997), "Ranking Methods in Unbalanced Paired Comparison Designs With Application to Business and Sports", *Primer Simposio de Estadística (First Statistical Symposium)*, Guanajuato, México, June 30 - July 4, 1997.
- Kadipaşaoğlu, Ş.N., Peixoto, J.L., and Khumawala, B.M. (1997), "An Empirical Investigation of the Relationship between MPC Improvement Programs and Performance," published in the *Proceedings of the 14th Pan-Pacific Conference*, Kuala-Lumpur, Malaysia, June 1997.
- Kadipaşaoğlu, Ş.N., Peixoto, J.L., Hurley, S.F., and Khumawala, B.M. (1997), "Best MPC Practices: A Comparative Analysis," published in the *Proceedings of the 14th Pan-Pacific Conference*, Kuala-Lumpur, Malaysia, June 1997.
- → Peixoto, J.L., and Díaz, J. (1996), "On the Construction of Hierarchical Polynomial Regression Models," *REVISTA ESTADÍSTICA, Journal of the Inter-American Statistical Institute* Vol 48, No. 150-151, pp. 175-210. (Click to read article.)
- Kadipaşaoğlu, Ş.N., Peixoto, J.L., Hurley, S.F. and Khumawala, B.M. (1996), "Global Manufacturing Practices: An Empirical Investigation", *Latin-Iberian-American Congress on Operations Research and Systems Engineering*, Rio de Janeiro, R.J., Brazil, 1996.
- Peixoto, J.L., Cáceres, M.A., and Forsthoffer, R.A. (1996), "Team Ranking in Unbalanced Sports Schedules: A Least-Squares Adjustment", published in the *Proceedings of the Statistics in Sports Section of the American Statistical Association, Joint Statistical Meetings*, Chicago, Illinois, August 1996. (<u>Click to read article.</u>)

- Peixoto, J.L., Cáceres, M.A., and Forsthoffer, R.A. (1996), "Team Ranking in Unbalanced Sports Schedules: A Least-Squares Adjustment", *Proceedings of the Statistics in Sports Section of the American Statistical Association, Joint Statistical Meetings*, Chicago, Illinois, August 1996.
- → Peixoto, J.L. (1993), "Four Equivalent Definitions of Reparametrizations and Restrictions in Linear Models", *Communications in Statistics—Theory and Methods.*, Vol 22, No. 1, pp. 283-299. (<u>Click</u> to read article.)
- → Peixoto, J.L. (1993), "Incorrect F-Formulas in Regression Analysis", *The American Statistician*, Vol. 47, No. 3, pp. 194-197. (Click to read article.)
- Sutanto, W., and Peixoto, J.L. (1991), "Data interpretation in the presence of interaction", *Proceedings of the Business and Economic Statistics Section of the American Statistical Association, Joint Statistical Meetings*, Atlanta, Georgia, August 1991. (<u>Click to read article.</u>)
- → Peixoto, J.L. (1990), "A property of well-formulated polynomial regression models", *The American Statistician*, Vol. 44, No. 1, pp. 26-30. (Click to read article.)
- → Peixoto, J.L. and LaMotte, L.R. (1989), "Simultaneous identification of outliers and predictors in linear regression models", *Journal of Statistical Planning and Inference*, Vol. 23, pp. 327-343. (<u>Click to read article.</u>)
- Peixoto, J.L. (1989), "Applications of lattice theory to polynomial regression models", *Proceedings* of the American Statistical Association, Joint Statistical Meetings, Washington, D.C., August 1989.
- → Peixoto, J.L. (1988), "Prediction in a class of mixed models with two variance components", Journal of Statistical Planning and Inference, Vol. 19, pp. 81-94. (Click to read article.)
- Peixoto, J.L. (1988), "The hierarchy of terms in factorial models", *Proceedings of the Biopharmaceutical Section of the American Statistical Association, Joint Statistical Meetings*, New Orleans, Louisiana, August 1988.
- Peixoto, J.L. (1988), "Testable multivariate linear hypotheses", *III Congreso Latinoamericano de Probabilidad y Estadística Matemática (III CLAPEM)*, Montevideo, Uruguay, September 1988.
- → Peixoto, J.L. (1987), "Hierarchical variable selection in polynomial regression models", *The Ameri*can Statistician, Vol. 41, pp. 311-313. (<u>Click to read article.</u>)
- Peixoto, J.L. (1987), "Transformations in linear models", *Proceedings of the Business Statistics Section of the American Statistical Association,* pp. 845-849, *Joint Statistical Meetings,* San Francisco, California, August 1987.
- → Peixoto, J.L. (1986), "Testable hypotheses in singular fixed linear models", Communications in Statistics—Theory and Methods, Vol. 15, pp. 1957-1974. (Click to read article.)

NOTE: The method of transforming partially testable hypotheses into equivalent completely testable hypotheses advocated in the preceding article has been implemented in the IMSL FOR-TRAN subroutine CESTI of IMSL STAT/LIBRARY. (<u>Click to view.</u>)

- → Peixoto, J.L., and Harville, D.A. (1986), "Comparisons of alternative predictors under the balanced one-way classification", *Journal of the American Statistical Association*, Vol. 81, pp. 431-436. (Click to read article.)
- Peixoto, J.L. (1986), "Hierarchical variable selection in linear models", *Proceedings of the Statistical Computing Section of the American Statistical Association*, pp. 264-267, Joint Statistical *Meetings*, Chicago, Illinois, August 1986.
- Peixoto, J.L. (1985), "On empirical Bayes inference in linear models", *Conference of Texas Statisticians*, Austin, Texas, April 1985.

#### **REFERENCES :**

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