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Professional experience

Associate Professor & Academic Affairs Vice-Chair, UCLA Statistics 7/04 - present
Assistant Professor, UCLA Statistics 7/98 - 6/04

Education

Ph.D., Statistics, University of California, Berkeley 8/93 - 12/97
Ph.D. Advisor, David Brillinger
B.S., Mathematics, Honors and Magna cum Laude, Brown University 5/93

Awards

NSF grant: "Spatial-temporal Analysis of Earthquake Catalogs using Point Processes." 8/03 - 8/06
Faculty Career Development Award, UCLA 7/01 - 6/02
NSF grant: "Fire hazard estimation using point process methods," 8/99 - 8/03
Dean's Marshal Award for the Division of Physical Sciences, UCLA 6/99
Loeve Fellowship recipient, U.C. Berkeley 8/93 - 6/97

Primary Research Interest:

Point processes, and applications to earthquakes and wildfires.

Publications

- Petty, K., Bickel, P., Jiang, J., Ostland, M., Rice, J., Ritov, Y., and Schoenberg, F. (1998). Accurate estimation of travel times from single loop detectors. *Transportation Research A*, 1, 1-17.
- Schoenberg, F. (1999). Transforming spatial point processes into Poisson processes. *Stochastic Processes and their Applications*, 81(2), 155-164.
- Schoenberg, F. and Bolt, B. (2000). Short-term exciting, long-term correcting models for earthquakes. *Bulletin of the Seismological Society of America*, 90(4), 849-858.
- Schoenberg, F. (2000). Summary of Data on Hyperemesis Gravidarum. *Birthkit*, Spring: 4,8.
- Schoenberg, F., Berk, R., Fovell, R., Li, C., Lu, R., and Weiss, R. (2001). Approximation and inversion of a complex meteorological system via local linear filters. *J. Applied Meteorology*, 40(3), 446-458.
- Kagan, Y. and Schoenberg, F. (2001). Estimation of the upper cutoff parameter for the tapered Pareto distribution. *J. Appl. Prob.* 38A, 158-175.

Publications, continued

- Schoenberg, F. (2001) On rescaled Poisson processes and the Brownian bridge. *Ann. Int. Statist. Math.*, 54(2), 445-457.
- Berk, R., Fovell, R., Schoenberg, F., and Weiss, R. (2001). The use of statistical tools for evaluating computer simulations: an editorial essay. *Climate Change*, 51, 119-130.
- Schoenberg, F. (2001). Evidence for threshold-type relationships between fire incidence and ecological factors. *Proc. Forest Fires 2001: Operational Mechanisms, Firefighting Means and New Technologies*, Athens, Greece, March 13-16, K. Saini, ed., pp 158-162.
- Schoenberg, F., Brillinger, D., and Guttorp, P. (2001). Point processes, spatial-temporal. in *Encyc. of Environmetrics*, A. El-Shaarawi and W. Piegorsch, eds. Wiley, NY, vol. 3, pp 1573–1577.
- Brillinger, D.R., Guttorp, P.M., and Schoenberg, F.P. (2002). Point processes, temporal. in *Encyclopedia of Environmetrics*, A. El-Shaarawi and W. Piegorsch, eds. Wiley, NY, vol. 3, pp 1577-1581.
- Guttorp, P.M., Brillinger, D.R., and Schoenberg, F.P. (2002). Point processes, spatial. in *Encyclopedia of Environmetrics*, A. El-Shaarawi and W. Piegorsch, eds. Wiley, NY, vol. 3, pp 1571–1573.
- Schoenberg, F. (2002) Tessellations. in *Encyclopedia of Environmetrics*, A. El-Shaarawi and W. Piegorsch, eds. Wiley, NY, vol. 3, pp 2176-2179.
- Berk, R., Bickel, P., Campbell, K., Fovell, R., Keller-McNulty, S., Kelly, E., Linn, R., Park, B., Perelson, A., Roupail, N., Schoenberg, F., and Sacks, J. (2002). Workshop on statistical approaches for the evaluation of complex computer models. *Statist. Sci.*, 17, 173-192.
- Schoenberg, F.P., Peng, R., Huang, Z., and Rundel, P. (2003). Detection of nonlinearities in the dependence of burn area on fuel age and climatic variables. *Int. J. Wildland Fire*, 12(1), 1-10.
- Schoenberg, F.P., Ferguson, T., and Li, C. (2003). Inverting Dirichlet tessellations. *Computer Journal*, 46(1), 76-83.
- Schoenberg, F.P., Peng, R., and Woods, J. (2003). On the distribution of wildfire sizes. *Environmetrics*, 14(6), 583–592.
- Schoenberg, F.P. (2003). Multi-dimensional residual analysis of point process models for earthquake occurrences. *JASA* 98(464), 789–795.
- Schoenberg, F.P. (2004). Consistent parametric estimation of the intensity of a spatial-temporal point process. *Journal of Statistical Planning and Inference* 128(1), 79–93.

Publications, continued

- Vere-Jones, D., and Schoenberg, F.P. (2004). Rescaling marked point processes. *Australian and New Zealand Journal of Statistics* 46(1), 133–143.
- Schoenberg, F.P. (2004). Testing separability in multi-dimensional point processes. *Biometrics* 60, 471–481.
- Brillinger, D.R., Robinson, E.A., and Schoenberg, F.P., editors (2004). *Time Series Analysis and Applications to Geophysical Systems*, IMA Volumes in Mathematics and its Applications, Springer, New York.
- Peng, R. D., Schoenberg, F. P., and Woods, J. (2004). Multi-dimensional point process models for evaluating a wildfire hazard index. *JASA* 100(469), 26–35.
- Zaliapin, I., Kagan, Y., and Schoenberg, F. (2005). Approximating the distribution of Pareto sums. *Pure and Applied Geophysics* 162(6-7), 1187–1228.
- Schoenberg, F.P. (2005). Review of Statistical Inference and Simulation for Spatial Point Processes by Jesper Moller and R.P. Waagepetersen. *JASA* 100(469), 349–350.
- Schweitzer, S., Connell, J., Schoenberg, F., and Rubini, L. (2005). Clustering in the biotechnology industry. *Proceedings of the 4th Global Conference on Business and Economics*, St. Hugh's College, Oxford, June 26-28, 2005.
- Veen, A. and Schoenberg, F.P. (2005). Assessing spatial point process models using weighted K-functions: analysis of California earthquakes. in *Case Studies in Spatial Point Process Models*, Baddeley, A., Gregori, P., Mateu, J., Stoica R., and Stoyan, D. (eds.), Springer, NY.
- Schoenberg, F.P. (2005). On non-simple marked point processes. *Ann. Inst. Stat. Math.*, 58(2), 223-233.
- Schweitzer, S., Connell, J., Schoenberg, F., and Rubini, L. (2005). Clustering in the biotechnology industry. *Proceedings of the 4th Global Conference on Business and Economics*, St. Hugh's College, Oxford, June 26-28 2005.
- Connell, J., Schweitzer, S.O., and Schoenberg, F.P. (2005). Factors underlying high-technology industrial clusters in the United States: the case of biotechnology firms. in "Health Policy and High-Tech Industrial Development: Learning from Innovation in the Health Industry", Di Tommaso, M.R. and Schweitzer, S.O., eds., Cheltenham, England: Edward Elgar Publishers.

Publications, continued

- Schweitzer, S., Connell, J., and Schoenberg, F. (2006). Clustering in the biotechnology industry. *Int. J. Healthcare Technology and Management* 7(6), 554-566.
- Schoenberg, F.P. and Tranbarger, K.E. (2007). Description of earthquake aftershock sequences using prototype point processes. *Environmetrics*, to appear.
- Schoenberg, F.P. (2007). Comment on 'A note on testing separability in spatial-temporal marked point processes,' by Rentao Assuncao and Alexandra Maia. *Biometrics* 63(1), 294-295.
- Peng, R., and Schoenberg, F.P. Estimating fire interval distributions using coverage process data. *Environmetrics*, in review.
- Tranbarger, K.E. and Schoenberg, F.P. On the computation and application of point process prototypes. *J. Comp. Graph. Stat.*, in review.
- Schoenberg, F.P., Chang, C., Keeley, J., Pompa, J., Woods, J., and Xu, H. (2007). A critical assessment of the Burning Index in Los Angeles County, California. *Int. J. Wildland Fire*, to appear.
- Schoenberg, F.P. On the separability of multidimensional point processes with covariates. *Ann. Inst. Stat. Math.*, in review.
- Schoenberg, F.P. (2007). Discussion of "Modern statistics for spatial point processes" by Moller and Waagepetersen. *Scandinavian Journal of Statistics* (in press).
- Schoenberg, F.P., and Xu, H. Directional kernel regression for wind and fire data. *Environmetrics*, in review.
- Schoenberg, F.P., Barr, C., and Seo, J. The distribution of Voronoi cells generated by Southern California earthquake epicenters. *Environmetrics*, in review.
- Veen, A. and Schoenberg, F.P. Estimation of space-time branching process models in seismology using an EM-type algorithm. *JASA*, in press.
- Zhuang, J. and Schoenberg, F. Residual analysis via thinning for spatial point processes. *Annals of the Institute of Statistical Mathematics*, in progress.
- Schoenberg, F.P., Pompa, J.L., and Chang, C. (2009). A note on non-parametric and semi-parametric modeling of wildfire hazard in Los Angeles County, California. *Environmental and Ecological Statistics* 16(2-3).
- Adelfio, G. and Schoenberg, F.P. Introduction to a diagnostic approach for point processes based on weighted second-order statistics. *Annals of the Institute of Statistical Mathematics*, in review.

Publications, continued

Chang, J., and Schoenberg, F.P. Santa Barbara ambulance response performance under load. *Western Journal of Emergency Medicine*, in review.

Invited Talks See <http://www.stat.ucla.edu/~frederic/talks.html>

Teaching

Stat. 252: Statistics in the Physical Sciences. UCLA.	Spr 04.
Stat. 222: Spatial Statistics. UCLA.	Spr 05, Fall 03, Fall 02, Spr 01.
Stat. 221: Time Series Analysis. UCLA.	F06, F05, W04, F01, W00, W99.
Stat. 210a: Applied Statistics. UCLA.	Fall 02.
Stat. 202b: Numerical Linear Algebra. UCLA.	Win 05.
Stat. 189: Honors, Applied Statistics. UCLA.	Fall 04.
Stat. 170: Intro. to Time Series Analysis. UCLA.	Win 01.
Stat. 110A: Applied Statistics. UCLA.	F04, S03, S02, W02, F98.
Stat. 100a: Intro. to Probability Theory. UCLA.	Fall 01.
Stat. 89: Honors, Intro. to Statistical Reasoning. UCLA.	Fall 2004.
Stat. 35b: Probability with Applications to Poker. UCLA.	Winter 07.
Stat. 19: Seminar, Applied Probability & Poker. UCLA.	F 06, S 06, F 05.
Stat. 13: Statistics for the Life Sciences. UCLA.	Spring 07, Spring 06.
Stat. M12: Statistics for Social Sciences. UCLA.	Fall 99.
Stat. M11: Statistics for Business & Economics. UCLA.	S02, S01, F00, W00, S99.
Stat. 10: Intro. to Statistical Reasoning. UCLA.	S 06, F 04, S 04, W 01, Sum 99.
Stat. 2: Intro. to Statistics. UC Berkeley.	Summer 97

Citizenship: USA.

Date of birth: 8/30/71.