Stephen Portnoy

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Education

B.A. (Mathematics)	1964, M. I. T. , Cambridge Massachusetts
M. S. (Statistics)	1966, Stanford University
Ph. D. (Statistics)	1969, Stanford University

Experience

10/17 - present	Adjunct Professor Mathematics Department, Portland State University
1/05 - 7/05	Francqui Professorship, Universite Libre de Bruxelles
7/81 - present	Professor of Statistics, Emeritus: 2002 Adjunct Professor of Biology Department of Statistics, University of Illinois
7/74 - 7/81	Associate Professor of Statistics Department of Statistics, University of Illinois
7/69 - 7/74	Assistant Professor of Statistics Harvard University, Cambridge, Massacusetts
9/18 - present	Adjunct Professor of Statistics Department of Mathematics and Statistics Portland State University

Professional Recognition

Fellow: American Association for the Advancement of Science: 2016

co-Editor, *Journal of the American Statistical Association* (T & M): 2005 -2008

Fellow: Institute of Mathematical Statistics: 1984

Fellow: American Statistical Association: 1994

Fellow: Center for Advanced Study, UIUC: 1993 - 1994

National Science Foundation Grants, PI or co-PI : 1975 - 1995, 1997 - 2001
National Science Foundation support: 2006 - 2012

National Security Agency Grants, PI: 2001 - 2007

NSF evaluation panels Math post-doc: 1985, 1992; Statistics Program panel: 2003; Math Division Committee of Visitors: 2004

NATO Collaborative Research Grant 1993 - 1995

Professional and Administrative Contributions

1991 - 2004	Associate Editor, *Journal of the American Statistical Association*
1979 - 1990	Associate Editor, *Annals of Statistics*
1983 - 1985	Chair, Division of Statistics, Department of Mathematics University of Illinois at Urbana-Champaign
1984 - 1986	COPSS Award Committee (IMS representative)
1991 - 1992	Chair, Senate Admissions Committee, UIUC
March, 1992	Program Chair: Central Region IMS, Cincinnati,
1994 - 1995	Chair, Senate Committee on Student Life, UIUC

Supervision of Doctoral Students

Primary Advisor

Lu Gan, University of Illinois, 2014
Seokwoo Choi, University of Illinois, 2014
Blandine Bawawana, University of Illinois, 2012
Guixian Lin, University of Illinois, 2010
Tereza Neocleous, University of Illinois, 2005
Constantin Georgescu, University of Illinois, 2004
Quanshui Zhao, University of Illinois, 1995
Kenneth Zhou, University of Illinois, 1995
Liji Shen, University of Illinois, 1994
Xuming He, University of Illinois, 1989
Lin-An Chen, University of Illinois, 1988
James Ringland, University of Illinois, 1980
Willis Davis, Harvard University, 1975

Secondary Advisor (involving substantial supervision)

Karlien Vanden Branden Catholic University of Leuven, Belgium, 2005
Gabriela Bidart-Bouzat, Ecology, University of Illinois, 2004
Sabrina Russo, Ecology, University of Illinois, 2003
Nara Jung, Mathematics, University of Illinois, 2003
Arne Bathke, Statistics, Göttingen, Germany, 2000
Ralf Reidel, Ecology, University of Illinois, 1999
Susan Franson, Ecology, University of Illinois, 1985
Persi Diaconis, Harvard University, 1974
Sandy Zabell, Harvard University, 1974
Joel Kleinman, Harvard University, 1972

External Reviewer

John Brewster, University of British Columbia, 1972
James Maher, Rutgers University, 1973
Shawn Xiang Lie, University of Calgary, 1994
Alwell Oyet, University of Alberta, 1997

Publications

The Two-Envelope Problem for General Distributions, *J. Statistical Theory and Practice, 14*, Article number 21, 2020.

Edgeworth's time series model: not AR(1) but same covariance structure, *J. Econometrics, 213*, 281-288, 2019.

Invariance, optimality, and a 1-observation confidence interval for a Normal mean, *The American Statistician, 73*, 10-15, 2019.

(with Seokwoo Choi) Quantile autoregression for censored data, *J. Time Series Analysis, 37*, 603-623, 2016.

A missing element: letter to the editor, *Significance, 15:2*, 46-47; (with supplemental material at `http://significancemagazing.com/584`), 2018.

Maximizing probability bounds under moment-matching restrictions, *The American Statistician, 69*, 41-44, 2015.

Exact Probability Bounds under Moment-matching Restrictions, arXiv:1411.2566[math.ST], 2014.

Who invented the Delta Method, letter, *American Statistician, 67*, 190, 2013.

Review of Jurečková, Sen, and Picek: *Methodology in Robust and Nonparametric Statistics*, *J. Amer. Statist. Assoc.,108*, 1134-1135, 2013.

The Jackknkfe's Edge: Inference for censored regression quantiles, *Comp. Statist. Data Analysis, 72*, 273-281, 2013.

Censored data analysis, *Encyclopedia of Environmetrics Second Edition*, A.-H. El-Shaarawi and W. Piegorsch (eds). John Wiley & Sons Ltd, Chichester, UK, pp. 358-363, 2012.

A squirtgun battle, *J. Recreational Mathematics, 37*, 39-45, 2008 (printed in 2012).

Nearly root-n approximation for regression quantile processes, *Ann. Statist., 40*, 1714-1736, 2012.

(with G. Lin and X. He) Quantile regression with doubly censored data, *J. Computational Statistics and Data Analysis, 56*, 797-812, 2012.

(with Simos Meintanis) Specification tests in mixed effects models.*J. Statistical Planning and Inference, 141*, 2545-2555, 2011.

Is ignorance bliss: fixed vs. random censoring. *Nonparametrics and Robustness in Modern Statistical Inference and Time Series Analysis: A Festschrift in honor of Professor Jana Jurečková* , IMS Collections Vol. 7, 215-223, 2010.

Another elementary approach to the multivariate normal. Letter: *IMS Bulletin*, 39:8, 15, 2010.

(with Guixian Lin) Asymptotics for Censored Regression Quantiles, *J. Nonparametric Statistics, 22*, 115-130, 2010.

(with Tereza Neocleous) A partly linear model for censored regression quantiles, *Lifetime Data Analysis, 15*, 357-378, 2009.

(with Tereza Neocleous) Monotonicity of regression quantile functions, *Prob. Stat. Letters, 78*, 1226-1229, 2008.

Discussion on M. Fygenson: Modeling and Predicting Extrapolated Probabilities with Outlooks, *Statistica Sinica, 18*, 48-55, 2008.

(with M. Debruyne, M. Hubert, and K. Vanden Branden) Censored depth quantiles, *Comp. Stat. Data Anal., 52*, 1604-1614, 2008.

(with Sabrina Russo and Carol Augspurger) Incorporating animal behavior into seed dispersal models: implications for seed shadows, *Ecology, 87*, 3160-3174, 2006.

(with Tereza Neocleous and Karlien Vanden Branden) Correction to "Censored Regression Quantiles", *J. Amer. Stat. Assoc., 101*, 860-861, 2006.

(with Xuming He) Discussion on Location-Scale Depth by I. Mizera and C. Müller,*J. Amer. Statist. Assoc., 99*, 973-976, 2004.

(with M.G. Bidart-Bouzat, E. DeLucia, and K. Paige), Elevated C02 and herbivory influence trait integration in *Arabidopsis thaliana*, *Ecology Letters, 7*, 837-847, 2004.

Censored Regression Quantiles, Chapter 8, *Survival Analysis Using S* by M. Tableman and J. Kim, Chapman-Hall/CRC, Boca Raton, 2004.

Censored Regression Quantiles, *J. Amer. Stat. Assoc.*, 98, 1001-1012, 2003.

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Disucssion on Hawkins and Olive: Inconsistency of resampling algorithms, *J. Amer. Stat. Assoc., 97*, 149-150, 2002.

(with G.W. Bassett) Minmax median, problem: *Econometric Theory*, 17, 1157, 2002.

(with Roger Koenker) Badly weighted least squares, problem: *Econometric Theory*, 18, 819-820, 2002.

Did Galton have a sense of humor? Letter: *Science, 236*, 1967, 14 June, 2002.

(with Jana Jurečková and Roger Koenker) Tail Behavior of the Least Squares Estimator, *Stat. Prob. Letters*, 55, 377-384, 2001.

(with Roger Koenker) Some Pathological Regression Asymptotics Under Stable Conditions, *Stat. Prob. Letters, 50*, 219-228, 2000.

(with Xuming He) A Robust Journey in the New Millennium, *J. Amer. Statist. Assoc., 95*, 1331-1335, 2000.

(with X. He) Some Asymptotic Results on Bivariate Quantile Spines, *J. Stat. Plan. Infer., 91* (special volume for Prague Workshop), 341-350, 2000.

(with Jana Jurečková) On extreme regression quantiles, *Extremes, 2*, 227-243, 1999.

(with Ivan Mizera) Discussion on Rousseeuw and Hubert: Regression depth, *J. Amer. Stat. Assoc., 94*, 417-419, 1999.

(with Q. Zhou) Statistical Inference on Heteroscedastic Models Based on Regression Quantiles, *J. Nonpar. Statist.*, 9, 239-260, 1998.

(with X. He and Ng Pin) Bivariate Quantile Smoothing Splines, *J. Roy. Stat. Soc., B*, 60, 537-550, 1998.

Convergence Rates for Maximal Score Estimators in Binary Response Regressions, *Asymptotic Methods in Probability and Statistics*, (Ed: B. Szyszkowicz), Elsevier, Amsterdam, 775-783, 1998.

(with X. He) Asymptotics of the Deepest Line, *Applied Statistical Science III: Nonparametric Statistics and related Topics*, (ed: S. E. Ahmed, M. Ahsanullah and B.K. Sinha), Nova Science Publishers, Inc., New York, ch. 5, 71-81, 1998.

(with Ivan Mizera) Discussion on Ellis: Instability of least squares, least absolute deviation, and least median of squares linear regression, *Statistical Science, 13*, 344-347,1998.

Local Asymptotics for Quantile Smoothing Splines, *Ann. Stat., 25*, 414-434, 1997.

(with R. Koenker) The Gaussian Hare and the Laplacian Tortoise: computability of squared-error vs. absolute-error estimators (with discussion), *Stat. Science, 12*, 279-300, 1997.

Computation of Regression Quantiles: Making the Laplacian Tortoise Faster, in L_1 *Statistical Procedures and Related Topics* (ed: Y. Dodge), IMS Lecture Notes - Monograph Series, Hayward, Calif., 187-200, 1997.

Discussion on Hall and Turlach: Interpolation methods for adapting to sparse designs in nonparametric regression, *J. Amer. Stat. Assoc., 92*, 473-475, 1997.

(with Robb Muirhead) Proposed Problem 10590, *Am. Math. Monthly, 104*, 362, 1997.

(with Quin Zhou) Direct Use of Regression Quantiles to Construct Confidence Sets in Linear Models, *Ann. Statist. 24*, 287-306, 1996.

(with Lin-An Chen) Two-Stage Regression Quantiles and Two-Stage Trimmed Least Squares Estimators for Structural Equation Models, *Comm. Stat. 25*, 1005-1032, 1996.

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(with R. Koenker and P. Ng) Quantile Smoothing Splines, *Biometrika, 81*, 673-680, 1994.

(with M. Willson) Seed dispersal curves: behavior of the tail of the distribution, *Evolutionary Ecology, 7*, 25-44, 1993.

(with C. Gutenbrunner, J. Jurečková, and R. Koenker) Tests of linear hypotheses based on regression rank scores, *J. Nonparametric Stat., 2*, 307-331, 1993.

(with Xuming He) Reweighted LS estimators converge at the same rate as the initial estimator, *Ann. Statist., 20*, 2161-2167, 1992.

(with Alan Welsh) Exactly what is being modelled by the systematic component of a heterscedastic linear regression, *Stat. Prob. Letters, 13*, 253-258, 1992.

A regression quantile based statistic for testing nonstationarity of errors, *Nonpar. Stat. and Related Topics*, (ed: A.K.Md.E. Saleh), 191-204, North Holland, Amsterdam, 1992.

Nonparametric regression methods based on regression quantiles, *Proceedings of the Twenty-Sixth Annual Research Conference, ARCH, 1992.1*, Society of Actuaries, 293-312, 1992.

(with Roger Koenker and Pin Ng) Nonparametric estimation of conditional quantile functions, L_1 *Statistical Analysis and Related Methods* (Ed: Y. Dodge), North-Holland, Amsterdam, 217-29, 1992.

(with David Petersen) Statistical differences among documentary sources: comments on *Genesis: An Authorship Study*, *Journal for the Study of the Old Testament, 50*, 3-14, 1991.

Asymptotic behavior of the number of regression quantile breakpoints, *SIAM J. Sci. Stat. Comp., 12*, 867-883, 1991.

Asymptotic behavior of regression quantiles in nonstationary, dependent cases, *J. Multivariate Analysis, 38*, 100-113, 1991.

(with He, Xuming and Simpson, Douglas) Breakdown robustness for tests, *J. Amer. Stat. Assoc., 85*, 446-452, 1990.

(with He, Jurečková, and Koenker) Tail behavior of regression estimators and their breakdown points, *Econometrica, 58*, 1195-1214, 1990.

(with Roger Koenker) M-estimation of multivariate regressions, *J. Amer. Stat. Assoc., 85*, 1060-1068, 1990.

Regression quantile diagnostics for multiple outliers, *Directions in Robust Statistics and Diagnostics, II* (ed: Stahel and Weisberg), Springer-Verlag, New York, 145-158, 1990.

Solution to Advanced Problem 6573: Functions leaving a distribution unchanged, *Am. Math. Monthly, 97*, 540-542, 1990.

(with Koenker, R.W.) Adaptive L-estimation of linear models, *Ann. Statist., 17*, 362-381, 1989.

Review of Rousseeuw and Leroy: *Robust Regression and Outlier Detection*, *Chemometrics and Intelligent Laboratory Systems, 6*, 254-255, 1989.

Asymptotic behavior of likelihood methods for exponential families when the number of parameters tends to infinity, *Ann. Statist., 16*, 356-366, 1988.

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(with Koenker, R.W.) Discussion of Draper: Rank-Based Robust Analysis of Linear Models, *Statistical Science, 3*, 259-261, 1988.

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(with Koenker, R.W.) *L*-Estimation for Linear Models, *J. Amer. Statist. Assoc., 82*, 851-857, 1987.

(with Jurečková, J.) Asymptotics for one-step M-estimators in regression with application to combining efficiency and high breakdown point. *Comm. Statist., Theory and Methods, 16*, 2187-2200, 1987.

Using regression quantiles to identify outliers. *Statistical Data Analysis Based on the L_1 Norm and Related Methods* (ed: Y. Dodge), North Holland, Amsterdam, 345-356, 1987.

Discussion on Barry, D. and Hartigan, J.: Analysis of hominoid molecular evolution. *Statist. Science, 2*, 207-208, 1987.

Asymptotic behavior of the empiric distribution of M-estimated residuals from a regression model with many parameters. *Ann. Statist., 14*, 1152-1170, 1986.

On the central limit theorem in R^p when $p \to \infty$. *Prob. Th. Rel. Fields, 73*, 571-583, 1986.

Review of Fabian and Hannan: *Introduction to Probability and Mathematical Statistics*, in *J. Amer. Statist. Assoc., 81*, 859, 1986.

Asymptotic behavior of M-estimators of p regression parameters when p^2/n is large; II. Normal approximation, *Ann. Statist., 13*, 1403-1417, 1985.

(with Petersen, D.) Genesis, Wellhausen, and the Computer: a response. *J. Alttestamentliche Wissenschaft, 96*, 421-425, 1985.

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(with Petersen, D.) Biblical texts and statistical analysis: Zechariah and beyond. *J. Biblical Literature, 103*, 11-21, 1984.

Asymptotic behavior of M-estimators of p regression parameters when p^2/n is large; I. Consistency, *Ann. Statist., 12*, 1298-1309, 1984.

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Maximizing the probability of correctly ordering random variables using linear predictors. *J. Multivar. Anal., 12*, 256-269, 1982.

Review of Huber: *Robust Statistics*, in *Technometrics, 24*, 163-164, 1982.

(with Collins, J.) Maximizing the variance of M-estimators using the generalized method of moment spaces. *Ann. Statist., 9*, 567-577, 1981.

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(with Nanney, D. and Meyer, E.B.) Perturbance analysis of nuclear determination in Tetrahymena, III: Analysis of mating type frequency variations with reference to binary-switch models. *Differentiation, 16*, 61-69, 1980.

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Further remarks on robust estimation in dependent situations. *Ann. Statist., 7*, 224-231, 1979.

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Variance stabilization for binomial variables, letter to the editor, *American Statistician, 31*, 54, 1977.

Robust estimation in dependent situations. *Ann. Statist., 5*, 22-43,1977.

On solutions to $u_t = \Delta u + u^2$ in two dimensions. *J. Math. Analysis and Applic., 55*, 291-294, 1976.

Admissibility of the best invariant estimator of one co-ordinate of a location vector. *Ann. Statist., 3*, 448-450, 1975.

Transience and solvability of a non-linear diffusion equation. *Ann. Probab., 3*, 465-477, 1975.

On recovery of intra-block information. *J. Amer. Stat. Assoc., 68*, 384-392, 1973.

Formal Bayes estimation with application to a random effects model. *Ann. Math. Statist., 42*, 1379-1402, 1971.

(with Stein, C.) Inadmissibility of the best invariant test in three or more dimensions. *Ann. Math. Statist., 42*, 799-801, 1971.