EXHIBIT A

Curriculum Vitae

Philip Bradford Stark

Biographical Information

- **Born:** 7 October 1960, Houston, Texas.
- **Citizenship:** U.S.A.

Interests

- **Theory**: Inverse problems, multiplicity, nonparametrics, optimization, restricted parameters
- **Applications**: Astrophysics, cosmology, geomagnetism, seismology, legislation and litigation, educational technology, web computing, information retrieval, targeted advertising

Education

- B.A. 1980, Princeton University, Princeton, New Jersey
- Ph.D. 1986, University of California, San Diego, La Jolla, California

Awards and Fellowships

- Presidential Chair Fellow, University of California, Berkeley (2003-2004)

- Fellow, Institute of Physics (elected 1999)
- Miller Research Professor, Miller Institute for Basic Research in Science (1999)
- Dobson Fellow, University of California at Berkeley (1998, 1999)
- Presidential Young Investigator (1989-1995)
- National Science Foundation Postdoctoral Fellowship in Mathematical Sciences (1987-1989)
- University Fellowship, University of Texas at Austin (1982-1983)

Societies and Affiliations

- American Geophysical Union
- Bernoulli Society for Mathematical Statistics and Probability
- Center for Data Analysis Technology and Applications (DATA)
- Center for Astrostatistics (Penn State)
- Global Oscillation Network Group (GONG)
- Fellow and Chartered Physicist, Institute of Physics
- Institute of Mathematical Statistics
- National Partnership for Advanced Computational Infrastructure (NPACI)
- Royal Astronomical Society
- Solar and Heliospheric Observatory Solar Oscillations Investigation (SOHO-SOI)
- Space Sciences Laboratory, University of California, Berkeley
- Theoretical Astrophysics Center, University of California, Berkeley

Employment

7/98-	Professor, Department of Statistics, University of California, Berkeley
7/01-6/03	Faculty Assistant in Educational Technology (to Vice Provost for Undergraduate Education), University of California, Berkeley
7/94-6/98	Associate Professor, Department of Statistics, University of California, Berkeley
7/88-6/94	Assistant Professor, Department of Statistics, University of California, Berkeley
7/87-6/90	National Science Foundation Postdoctoral Fellow in Mathematical Sciences
1/87-6/87	Postgraduate Research, Department of Statistics, University of California, Berkeley
8/86-12/86	Postgraduate Research, Institute for Geophysics and Planetary Physics, UC San Diego

Visiting Positions

6/96 Visiting Associate Professor, School of Mathematical Sciences, Tel Aviv University, Tel Aviv, Israel

Former Students and Postdocs

- Imola K. Fodor, Lawrence Livermore National Laboratory
- Christopher R. Genovese, Carnegie Mellon University
- Niklaus W. Hengartner, Los Alamos National Laboratory
- R. Jay Pulliam, University of Texas
- Chad M. Schafer, Carnegie Mellon University

Mentors

- Robert L. Parker, Institute for Geophysics and Planetary Physics, Scripps Institution of Oceanography, University of California, San Diego (PhD dissertation advisor)
- George E. Backus, Institute for Geophysics and Planetary Physics, Scripps Institution of Oceanography, University of California, San Diego (postdoctoral advisor)
- David L. Donoho, Department of Statistics, Stanford University (postdoctoral advisor)

Publications

Refereed Publications

1. Stark, P.B. and C. Frohlich, 1985. The depths of the deepest deep Earthquakes, *J. Geophys. Res.*, *90*, 1859-1869.
2. Stark, P.B., R.L. Parker, G. Masters and J.A. Orcutt, 1986. Strict bounds on seismic velocity in the spherical Earth, *J. Geophys. Res.*, *91*, 13,892-13,902.
3. Stark, P.B. 1986. *Travel-Time Inversion: Regularization and Inference*, Ph.D. Thesis, Scripps Instution of Oceanography, University of California, San Diego, 106pp.
4. Stark, P.B. and R.L. Parker, 1987. Smooth profiles from tau (p) and X(p) data, *Geophys. J. R. astr. Soc.*, *89*, 2713-2719.
5. Stark, P.B. and R.L. Parker, 1987. Velocity bounds from statistical estimates of tau(p) and X(p), J. *Geophys. Res.*, *92*, 2713-2719.
6. Stark, P.B., 1987. Rigorous velocity bounds from soft tau (p) and X(p) data, *Geophys. J. R. astr. Soc.*, *89*, 987-996.
7. Orcutt, J.A., R.L. Parker, P.B. Stark and J.D. Garmany, 1988. Comment concerning "A method of obtaining a velocity-depth envelope from wide-angle seismic data" by R. Mithal and J.B. Diebold. *Geophys. J.*, *95*, 209-212.
8. Stark, P.B. and R.L. Parker, 1988. Correction to "Velocity bounds from statistical estimates of tau(p) and X(p)." J. *Geophys. Res.*, *93*, 13,821-13,822.
9. Donoho, D.L. and P.B. Stark, 1989. Uncertainty principles and signal recovery. *SIAM J. Appl. Math.*, *49*, 906-931.
10. Stark, P.B., 1992. Affine minimax confidence intervals for a bounded Normal mean, *Statistics and Probability Letters*, *13*, 39-44.
11. Stark, P.B., 1992. Minimax confidence intervals in geomagnetism, *Geophys. J. Intl.*, *108*, 329-338.
12. Stark, P.B., 1992. Inference in infinite-dimensional inverse problems: Discretization and duality, *J. Geophys. Res.*, *97*, 14,055-14,082.
13. Donoho, D.L. and P.B. Stark, 1993. A note on rearrangements, spectral concentration, and the zero-order prolate spheroidal wavefunction. *IEEE-IT*, *39*, 257-260.
14. Pulliam, R.J. and P.B. Stark, 1993. Bumps on the core-mantle boundary: Are they facts or artifacts?, *J. Geophys. Res.*, *98*, 1943-1956.
15. Stark, P.B. and N.W. Hengartner, 1993. Reproducing Earth's kernel: Uncertainty of the shape of the core-mantle boundary from PKP and PcP travel-times, *J. Geophys. Res.*, *98*, 1957-1972.
16. Stark, P.B., 1993. Uncertainty of the COBE quadrupole detection, *Ap. J. Lett.*, *408*, L73-L76.
17. Stark, P.B. and D.I. Nikolayev, 1993. Toward tubular tomography, *J. Geophys. Res.*, *98*, 8095-8106.
18. Constable, C.G., R.L. Parker and P.B. Stark, 1993. Geomagnetic field models incorporating frozen-flux constraints, *Geophys. J. Intl.*, *113*, 419-433.
19. Gough, D.O. and P.B. Stark, 1993. Are the 1986-1988 changes in solar free-oscillation frequency splitting significant?, *Ap. J.*, *415*, 376-382.
20. Stark, P.B., M.M. Herron and A. Matteson, 1993. Empirically minimax affine mineralogy estimates from Fourier-transform infrared spectroscopy data using a decimated wavelet basis, *Applied Spectroscopy*, *47*, 1820-1829.
21. Pulliam, R.J. and P.B. Stark, 1994. Confidence regions for mantle heterogeneity, *J. Geophys. Res.*, *99*,

6931-6943.
22. Genovese, C.R., P.B. Stark and M.J. Thompson, 1995. Uncertainties for Two-Dimensional Models of Solar Rotation from Helioseismic Eigenfrequency Splitting, *Ap. J.*, *443*, 843-854.
23. Stark, P.B. and R.L. Parker, 1995. Bounded-variable least-squares: an algorithm and applications, *Comput. Stat.*, *10*, 129-141.
24. Hengartner, N.W. and P.B. Stark, 1995. Finite-sample confidence envelopes for shape-restricted densities, *Ann. Stat.*, *23*, 525-550.
25. Stark, P.B., 1995. Reply to Comment by Morelli and Dziewonski, *J. Geophys. Res.*, *100*, 15,399-15,402.
26. Gough, D.O., T. Sekii, and P.B. Stark, 1996. Inferring spatial variation of solar properties from helioseismic data, *Ap. J.*, *459*, 779-791.
27. Benjamini, Y. and Stark, P.B., 1996. Non-equivariant simultaneous confidence intervals less likely to contain zero, *J. Am. Stat. Assoc.*, *91*, 329-337.
28. Hill, F., P.B. Stark, R.T. Stebbins, E.R. Anderson, H.M. Antia, T.M. Brown, T.L. Duvall, Jr., D.A. Haber, J.W. Harvey, D.H. Hathaway, R. Howe, R. Hubbard, H.P. Jones, J.R. Kennedy, S.G. Korzennik, A.G. Kosovichev, J.W. Leibacher, K.G. Libbrecht, J.A. Pintar, E.J. Rhodes, Jr., J. Schou, M.J. Thompson, S. Tomczyk, C.G. Toner, R. Toussaint, and W.E. Williams, 1996. The solar acoustic spectrum and eigenmode parameters, *Science*, *272*, 1292-1295.
29. Thompson, M.J., J. Toomre, E.R. Anderson, H.M. Antia, G. Berthomieu, D. Burtonclay, S.M. Chitre, J. Christensen-Dalsgaard, T. Corbard, M. DeRosa, C.R. Genovese, D.O. Gough, D.A. Haber, J.W. Harvey, F. Hill, R. Howe, S.G. Korzennik, A.G. Kosovichev, J.W. Leibacher, F.P. Pijpers, J. Provost, E.J. Rhodes, Jr., J. Schou, T. Sekii, P.B. Stark, and P.R. Wilson, 1996. Differential rotation and dynamics of the solar interior, *Science*, *272*, 1300-1305.
30. Stark, P.B., 1996. A few considerations for ascribing statistical significance to earthquake predictions, *Geophys. Res. Lett.*, *23*, 1399-1402.
31. Evans, S.N., and P.B. Stark, 1996. Shrinkage estimators, Skorokhod's problem, and stochastic integration by parts, *Ann. Stat.*, *24*, 809-815.
32. Genovese, C.R. and P.B. Stark, 1996. Data Reduction and Statistical Consistency in Linear Inverse Problems, *Phys. Earth Planet. Inter.*, *98*, 143-162.
33. Stark, P.B., 1997. Earthquake prediction: the null hypothesis, *Geophys. J. Intl.*, *131*, 495-499.
34. Benjamini, Y., Y. Hochberg, and P.B. Stark, 1998. Confidence Intervals with more Power to determine the Sign: Two Ends constrain the Means, *J. Amer. Stat. Assoc.*, *93*, 309-317.
35. Tenorio, L., P.B. Stark, and C.H. Lineweaver, 1999. Bigger uncertainties and the Big Bang, *Inverse Problems*, *15*, 329-341.
36. Stark, P.B., 1999. Geophysics, Statistics in, in *Encyclopedia of Statistical Sciences, Update Volume 3*, S. Kotz, C.B. Read, and D.L. Banks, eds., John Wiley and Sons, NY. Invited.
37. Komm, R., Y. Gu, P.B. Stark, and I. Fodor, 1999. Multitaper Spectral Analysis and Wavelet Denoising Applied to Helioseismic Data, *Astrophysical J.*, *519*, 407-421.
38. Freedman, D.A., and P.B. Stark, 1999. The swine flu vaccine and Guillain-Barré syndrome: a case study in relative risk and specific causation, *Evaluation Review*, *23*, 619-647.
39. Fodor, I. and P.B. Stark, 2000. Multitaper Spectrum Estimation for Time Series with Gaps, *IEEE Trans. Signal Processing*, *48*, 3472-3483.
40. Freedman, D.A., P.B. Stark, and K.W. Wachter, 2001. A probability model for census adjustment, *Mathematical Population Studies*, *9*, 165-180.
41. D.A. Freedman and P.B. Stark, 2001. The swine flu vaccine and Guillain-Barré syndrome. *Law and Contemporary Problems*, *64*, 49–62.
42. Evans, S.N. and P.B. Stark, 2002. Inverse Problems as Statistics, *Inverse Problems*, *18*, R1-R43. Invited.
43. Schafer, C.M. and P.B. Stark, 2004. Using what we know: inference with physical constraints. *Proceedings of the Conference on Statistical Problems in Particle Physics, Astrophysics and Cosmology PHYSTAT2003*, L. Lyons, R. Mount and R. Reitmeyer, eds., Stanford Linear Accelerator Center, Menlo Park, CA, 25-34.
44. Evans, S.N., B. Hansen, and P.B. Stark, 2005. Minimax Expected Measure Confidence Sets for

Restricted Location Parameters, *Bernoulli*, *11*, 571-590. Also Tech. Rept. 617, Dept. Statistics Univ. Calif Berkeley (May 2002, revised May 2003).

45. Divenyi, P., P.B. Stark, and K. Haupt, 2005. Decline of Speech Understanding and Auditory Thresholds in the Elderly, *J. Acoustical Soc. Am.*, *118*, 1089-1100.

Technical Reports and Unrefereed Publications

46. Stark, P.B., 1988. Strict bounds and applications. in *Some Topics on Inverse Problems*, P.C. Sabatier, ed., World Scientific, Singapore.
47. Donoho, D.L. and Stark, P.B., 1988. Rearrangements and Smoothing, Tech. Rept. 148, Dept. Stat., Univ. Calif. Berkeley.
48. Donoho, D.L. and P.B. Stark, 1989. Recovery of a Sparse Signal When the Low Frequency Information is Missing, Tech. Rept. 179, Dept. Statistics, Univ. Calif. Berkeley.
49. Stark, P.B., 1990. Rigorous computer solutions to infinite-dimensional inverse problems. in *Inverse Methods in Action*, P.C. Sabatier, ed., Springer-Verlag. pp. 462-467.
50. Hengartner, N.W. and P.B. Stark, 1992. Conservative finite-sample confidence envelopes for monotone and unimodal densities, Tech. Rept. 341, Dept. Statistics, Univ. Calif. Berkeley.
51. Hengartner, N.W. and P.B. Stark, 1992. Confidence bounds on the probability density of aftershocks, Tech. Rept. 352, Dept. Statistics, Univ. Calif. Berkeley.
52. Stark, P.B., 1992. The Cosmic Microwave Background and Earth's Core-Mantle Boundary: A Tale of Two CMB's, Tech. Rept. 371, Dept. Statistics, Univ. Calif. Berkeley.
53. Genovese, C. and P.B. Stark, 1993. l_1 spectral estimation: Algorithms and tests of super-resolution, in *GONG 1992: Seismic Investigations of the Sun and Stars, Proc. Astr. Soc. Pac. Conf. Ser.*, **42**, T. Brown, ed., pp. 453-456.
54. Gough, D.O. and P.B. Stark, 1993. The significance of changes in solar free-oscillation splitting from 1986-1990, in *GONG 1992: Seismic Investigations of the Sun and Stars, Proc. Astr. Soc. Pac. Conf. Ser.*, *42*, T. Brown, ed., pp. 221-224.
55. Stark, P.B., 1994. Simultaneous Confidence Intervals for Linear Estimates of Linear Functionals, Tech. Rept. 417, Dept. Statistics, Univ. Calif. Berkeley.
56. Sekii, T., C.R. Genovese, D.O. Gough, and P.B. Stark, 1995. Observational constraints on the internal solar angular velocity, in *Fourth SOHO Workshop: Helioseismology*, J.T. Hoeksema, V. Domingo, B. Fleck and B. Battrick, eds., ESA Publications Division SP-376, Noordwijk, Volume 2, pp. 279-283.
57. Stark, P.B., 1997. Data Sampling Rate Reduction for the OERSTED Geomagnetic Satellite.
58. Fodor, I.K., J. G. Berryman, and P. B. Stark, 1997. Comparison of Autoregressive and Multitaper Spectral Analysis for Long Time Series, *Stanford Exploration Project*, 95, pp. 331-355.
59. Komm, R.W., Y. Gu, F. Hill, P.B. Stark, and I.K. Fodor, 1998. Multitaper Spectral Analysis and Wavelet Denoising Applied to Helioseismic Data, *Proc. Tenth Cambridge Workshop on Cool Stars, Stellar Systems and the Sun*, ASP Conference Series, 154, CDR 783-790.
60. Komm, R.W., E. Anderson, F. Hill, R. Howe, A.G. Kosovichev, P.H. Scherrer, J. Schou, I. Fodor, and P. Stark, 1998. Comparison of SOHO-SOI/MDI and GONG Spectra, *Proceedings of the SOHO 6/GONG 98 Workshop*, 'Structure and Dynamics of the Interior of the Sun and Sun-like Stars,' Boston, USA, 1-4 June 1998, ESA SP-418, pp. 253-256.
61. Komm, R.W., E. Anderson, F. Hill, R. Howe, I. Fodor, and P. Stark, 1998. Multaper analysis applied to a 3-month time series, *Proceedings of the SOHO 6/GONG 98 Workshop*, 'Structure and Dynamics of the Interior of the Sun and Sun-like Stars,' Boston, USA, 1-4 June 1998, ESA SP-418, pp. 257-260.
62. Stark, P.B., 1999. Letter to the Editor of USA Today regarding Sampling to Adjust the 2000 Census, 19 January. (original version)
63. Fodor, I.K. and P.B. Stark, 1999. Multitaper Spectrum Estimates for Time Series with Missing Values, *Computing Science and Statistics, 31*: Models, Predictions, and Computing. K. Berk and M. Pourahmadi, eds., pp. 383-387.

64. Stark, P.B., 1999. The 1990 and 2000 Census Adjustment Plans, Tech. Rept. 550, Dept. Statistics, Univ. Calif. Berkeley (revised May 2000)
65. Stark, P.B., 2000. Inverse Problems as Statistics, in *Surveys on Solution Methods for Inverse Problems*, Colton, D., H.W. Engl, A.K. Louis, J.R. Mclaughlin and W. Rundell, eds., Springer-Verlag, New York, pp. 253-275. Invited.
66. Stark, P.B., 2001. Review of *Who Counts?* by Margo J. Anderson and Stephen E. Fienberg, *Journal of Economic Literature*, **XXXIX**, pp. 593-595. Invited.
67. Stark, P.B., 2003. Capture-recapture. *Encyclopedia of Social Science Research Methods*, Sage Publications, Thousand Oaks, CA. Invited.
68. Stark, P.B., 2003. Census Adjustment. *Encyclopedia of Social Science Research Methods*, Sage Publications, Thousand Oaks, CA. Invited.
69. Freedman, D.A. and P.B. Stark, 2003. What is the Chance of an Earthquake? in *Earthquake Science and Seismic Risk Reduction*, F. Mulargia and R.J. Geller, eds., NATO Science Series IV: Earth and Environmental Sciences, v. 32, Kluwer, Dordrecht, The Netherlands, pp. 201-213. Invited. (preprint)
70. Stark, P.B., 2004. Estimating power spectra of galactic structure: can Statistics help?, in *Penetrating Bars Through Masks of Cosmic Dust: The Hubble Tuning Fork Strikes a New Note*, D.L. Block, I. Puerari, K.C. Freeman, R. Groess and E.K. Block, eds., Springer, The Netherlands, pp. 613-617. Invited.
71. Freedman, D.A. and P.B. Stark, 2005. Ecological correlation and the ecological fallacy. To appear in *Encyclopedia of Law and Society*. Invited.

Submitted Papers

1. Borrill, J., and P.B. Stark, 1998. A fast method for bounding the CMB power spectrum likelihood function, submitted to *Phys. Rev.*

Online Documents

1. **SticiGui©:** Statistics Tools for Internet and Classroom Instruction with a Graphical User Interface. www.stat.berkeley.edu/~stark/SticiGui
2. Testimony before U.S. House of Representatives Subcommittee on the Census, 5 May 1998.
3. Response to 25 Questions from Representative C. Maloney, Ranking Minority Member, U.S. House of Representatives Subcommittee on the Census, 13 May 1998.

Software

- Stark, P.B., and R.L. Parker, 1994. BVLS (Bounded-Variable Least Squares), STATLIB (Carnegie-Mellon University ftp server)
- Java Applets for Statistics
- Miscellaneous software

Invited Presentations

2005

- *Resolution in Nonlinear and Constrained Inverse Problems*, Workshop on Computational and Mathematical Geoscience, Colorado School of Mines, Golden CO, 15-17 June.

2004

- *Quantifying uncertainty in inverse problems*, Summer school: Mathematical Geophysics and Uncertainty in Earth Models, Colorado School of Mines, Golden CO, 14-25 June 2004.
- *Estimating power spectra of galaxy structure: can Statistics help?*, Penetrating bars through masks

of cosmic dust: the Hubble tuning fork strikes a new note, Pilanesberg National Park, South Africa, 7-12 June 2004.

2003

- *Quantifying uncertainty in inverse problems*, Institute for Pure and Applied Mathematics (IPAM) Conference on Statistical Methods for Inverse Problems, 5-6 November, IPAM, Los Angeles, CA
- *Guest, The Fred Ebert Show* program on probability and statistics, 27 October, KIRO 710, Seattle, WA
- *Using what we know: inference with physical constraints*, PhyStat 2003: Statistical Problems in Particle Physics, Astrophysics and Cosmology, 8-10 September, Stanford Linear Accelerator Center, Stanford, CA

2002

- *Statistical Approaches to Inverse Problems*. Danish Interdisciplinary Inversion Group Seminars on Inverse Problems: Insight and Algorithms. Niels Bohr Institute, Copenhagen University, 27-29 May, Copenhagen, Denmark.
- *Statistical Measures of Uncertainty in Inverse Problems*. Institute for Mathematics and its Applications Tutorial on Inverse Problems and the Quantification of Uncertainty, Annual Program *Mathematics in the Geosciences*, 19 March, Minneapolis, MN.
- *Data Errors, Model Errors, and Estimation Errors*, Frontiers of Geophysical Inversion Workshop, Waterways Experiment Station, U.S. Army Corps of Engineers Engineer Research and Development Center, 17-19 February, Vicksburg, MS.

2001

- *Strategic Planning and Implementation I: The Challenge of Adapting Organizations and Creating Partnerships to Target New Markets*, University Teaching as E-business?, Center for Studies in Higher Education, 26-27 October, Berkeley, CA.
- *Inverse Problems and Data Errors*, New Developments in Astrophysical Fluid Dynamics, Chateau de Mons, 25-29 June, Caussens, France.
- *Data Reduction and Inverse Problems in Helioseismology*, Workshop "Statistics of inverse problems," Institut Henri Poincaré, 28-29 May, Paris, France.
- *Why Statistics is worth the Stigma*, Letters and Sciences Faculty Forum, 23 April, University of California, Berkeley
- *Inverse Problems in Helioseismology*, Second MaPhySto Workshop on Inverse Problems: Inverse problems from a Statistical Perspective, 28-31 March, Aalborg, Denmark

2000

- What are the Chances? *NATO Advanced Research Workshop: State of scientific knowledge regarding earthquake occurrence and implications for public policy*, Le Dune, Piscinas - Arbus, Sardinia, Italy, 15-19 October.
- Why Unadjusted Census Results should be Used for Reapportionment and Funding within the State of California. *13th Annual Demographic Workshop*, U.S. Bureau of the Census, California State Census Data Center, and the Population Research Laboratory of the University of Southern California, Los Angeles, CA, 15 May.
- Invited Discussant, *Workshop of the National Academy of Sciences Panel to Review the 2000 Census*, Washington, D.C., 2-3 February.

1999

- Invited Discussant, *Panel Discussion on the role of sampling in the US Census*, San Francisco Bay Area Chapter of the American Statistical Association, 20 December.
- Lecturer, Mathematical Geophysics Summer School, Stanford University, Stanford, CA, 2-20 August.
- **Less Asymptotic Tomography**. *9th SOHO Workshop: Helioseismic Diagnostics of Solar Convection and Activity*, Stanford University, Stanford, CA, 12-15 July.
- Panelist, *Reinventing Undergraduate Education: Technology Enhanced Learning in the Sciences, Math, and Engineering*, University of California, Berkeley, CA, 23 April.

- **Error in Numerical Models Fitted to Data**. *DSRC/DARPA Study on Numerical Simulation of Physical Systems: The State of the Art, and Opportunities for Further Advances, Kick-Off Meeting*, Arlington, VA, 19-20 January.
- **Sampling to Adjust the U.S. Census.** Miller Institute for Basic Research in Science, University of California, Berkeley, CA, 12 January.

1998

- **A Statistician's Perspective on Census Adjustment,** Berkeley Breakfast Club, Berkeley, CA, 5 December.
- **SticiGui©: Melts in your Browser, not in your Brain**, Joint Berkeley-Stanford Statistics Colloquium, Department of Statistics, Stanford University, Stanford, CA, 27 October.
- **SticiGui: Statistics Tools for Internet and Classroom Instruction with a Graphical User Interface**, 1998 Joint Statistical Meetings of the American Statistical Association, International Biometric Society, and Institute of Mathematical Statistics, Orlando, FL, 12 August.
- **Presidential Panel on Statistics in Public Policy**, 1998 Joint Statistical Meetings of the American Statistical Association, International Biometric Society, and Institute of Mathematical Statistics, Orlando, FL, 10 August.
- Guest, **KQED-FM Forum** program on the 2000 Census, San Francisco, CA, 17 July.
- **Misfit Measures and Statistical Inconsistency in Linear Inverse Problems**. AMS/IMS/SIAM Joint Summer Research Conferences in the Mathematical Sciences, Mathematical Methods in Inverse Problems for Partial Differential Equations, Mt. Holyoke, MA, 4-9 July.
- **Uncertainties for functions from incomplete, erroneous data**. NSF/DOE Workshop on Uncertainty in Modeling, National Science Foundation, Arlington, VA, 11-12 June.
- **Sampling to adjust the 1990 Census for Undercount**. U.S. House of Representatives Subcommittee on the Census, May.
- **Sounding the Sun: Helioseismology**. 1998 American Association for the Advancement of Science (AAAS) Annual Meeting and Science Innovation Exposition, Philadelphia, PA., February.

1997

- **Does God play dice with the Earth, and if so, are they loaded?** Fourth SIAM Conference on Mathematical and Computational Methods in the Geosciences, Albuquerque, NM.
- **Solving Problems for a Large Statistics Lecture Course using a Website** UC Berkeley Academic Senate Workshop on Classroom Technology, Berkeley, CA.
- **Deficiencies of the simple theories**, Local Helioseismology Workshop, University of Cambridge, Cambridge, England.

1996

- **CMB's**, Royal Astronomical Society Ordinary Meeting, London, England.
- **The Null Hypothesis**, Royal Astronomical Society and Joint Associations for Geophysics discussion meeting on Assessment of Schemes for Earthquake Prediction, London, England.
- **On the consistency of multiple inference in inverse problems using l_p confidence sets**, International Conference on Multiple Comparisons, Tel Aviv, Israel.

1995

- **Confidence Intervals in Inverse Problems**, Conference in Honor of George Backus, Institute for Geophysics and Planetary Physics, La Jolla, CA
- **The Need for Wave-Equation Travel-Time Tomography**, Institute for Mathematics and Its Applications, Conference on Tomography, Minneapolis, MN
- **Inference, Prior Information, and Misfit Measures**, Interdisciplinary Inversion Conference on Methodology, Computation and Integrated Applications, University of Aarhus, Aarhus, Denmark
- **Optimization and Inference in Travel-Time Seismology**, National Research Council Board on Mathematical Sciences Symposium on Mathematical Sciences in Seismology, Washington, DC
- **Prior Information and Confidence Intervals in Inverse Problems**, International Union of Geodesy and Geophysics Meeting, Boulder, CO

- **Something AGAINST Nothing: A Confidence Game**, Joint Statistical Meetings of the American Statistical Association, International Biometric Society, and Institute of Mathematical Statistics, Orlando, FL
- **Uncertainties in Travel-Time Seismology**, SIAM/GAMM Symposium on Inverse Problems: Geophysical Applications, Fish Camp, CA

1994

- **Toward Tubular Tomography**, 27th General Assembly of the Int. Assoc. of Seismology and Phys. of the Earth's Inter. (IASPEI), Wellington, New Zealand
- **Alternative Data Analysis Techniques**, Global Oscillation Network Group annual meeting, Los Angeles, CA (presented by C. Genovese due to illness).
- **Mathematical Aspects of Integral Equation Inversion**, Global Oscillation Network Group workshop, Sydney, Australia.

1993

- **Conservative Finite-Sample Confidence Envelopes for Monotone and Unimodal Densities**, Mathematisches Forschungsinstitut Oberwolfach meeting on Curves, Images and Massive Computation, Oberwolfach, Germany
- Invited Discussant, Joint IMS/ASA/ENAR Meeting, Philadelphia, PA
- **Uncertainty of the Quadrupole Component of the Cosmic Microwave Background**, Israel Statistical Association Annual Meeting, Tel Aviv
- **Brute-Force Minimax Estimation in Geochemistry**, Joint Statistical Meetings of the American Statistical Association, International Biometric Society, and Institute of Mathematical Statistics, San Francisco, CA

1992

- **Conservative Numerical Uncertainty Estimates in Inverse Problems**, SIAM 40th Anniversary Meeting, Los Angeles, CA

1991

- **Minimax Estimation in Geomagnetism**, European Geophysical Society Annual Meeting, Wiesbaden, Germany
- **Minimax Estimation in Geophysical Inverse Problems: Applications to Seismic Tomography and Geomagnetism**, Schmitt Institute for Physics of the Earth, Academy of Sciences of the USSR, Moscow
- **Imagining Earth's Interior: Controversies in Seismology and Geomagnetism**, Mathematical Sciences Research Institute Workshop on Statistical Methods in Imaging, Berkeley, CA

1990

- **Discretization and its Discontents: New Methods in Inverse Theory**, Institute for Theoretical Physics program "Helioseismology---Probing the Interior of a Star," National Science Foundation Institute for Theoretical Physics, University of California, Santa Barbara
- **Inference in Infinite-Dimensional Inverse Problems**, Schmitt Institute for Physics of the Earth, Academy of Sciences of the USSR, Moscow
- **Inference in Infinite-Dimensions: Discretization and Duality**, Israel Statistical Association Annual Meeting, Jerusalem
- **Superresolution: What, When and How?**, Institute for Theoretical Physics program "Helioseismology---Probing the Interior of a Star," National Science Foundation Institute for Theoretical Physics, University of California, Santa Barbara

1989

- **Sparsity-Constrained Deconvolution**, International Union of Radio Science Meeting, Boulder, CO
- Invited Discussant. Statistics, Earth and Space Sciences Meeting of the Bernoulli Society, Leuven, Belgium
- **Rigorous Computer Solutions to Infinite-Dimensional Inverse Problems**, rcp 264 problemes inverses, Montpellier, France

1988

- **Duality and Discretization Error**, *Conference on Mathematical Geophysics*, Blanes, Spain

1987

- **Spectral extrapolation with positivity**, *International Union of Radio Science Meeting*, Boulder, CO

1986

- **Travel-Time Constraints on Core Structure**, *Special Session on Geophysics of the Core and Core-Mantle Boundary, American Geophysical Union Spring Meeting*, Baltimore, MD
- **Smooth Models from tau(p) and X(p) Data**, *Scripps Industrial Associates Short Course on Inverse Theory*, Scripps Institution of Oceanography, La Jolla, CA

Other invited seminars

- California State University, Chico (Mathematics 1993)
- Colorado School of Mines (Dept. of Mathematical and Computer Sciences, 1997)
- Copenhagen University (Niels Bohr Institute for Astronomy, Physics, and Geophysics 1996)
- Hebrew University of Jerusalem (Statistics 1993)
- National Solar Observatory (1997)
- Naval Postgraduate School (Operations Research, 2001)
- Schlumberger-Doll Research (1988, 1990, 1991, 1992)
- Southern Methodist University (Statistical Sciences, 1998)
- Stanford University (Center for Space Physics and Astrophysics 1992; Mathematics, 1997; Geology and Geophysics, 1993, 1997; Statistics 1988, 1993, 1995)
- The Technion (Statistics 1987)
- Tel-Aviv University (Geology and Geophysics 1988, 1991; Statistics 1991)
- University of British Columbia (Geophysics and Astronomy 1996)
- University of California, Berkeley (Astronomy 1996; Center for Pure and Applied Mathematics 1988; Geology and Geophysics 1988; Materials Science and Mineral Engineering 1988; Physics, 2001; Seismographic Stations, 1991, 1992, 1996; Statistics 1987, 1988(2),1989(2), 1990, 1991, 1992, 1994, 1996(2), 1997)
- University of California, Davis (Statistics 1995; Mathematics 2000)
- University of California, Los Angeles (Mathematics 1992; Statistics 2000)
- University of California, Riverside (Earth Sciences 1996; Statistics 1996)
- University of California, San Diego (Institute for Geophysics and Planetary Physics 1985, 1986, 1987, 1988(2), 1990, 1998, 2005; Mathematics 1994)
- University of Cambridge (Institute for Astronomy 1992, 1997)
- University of Chicago (Statistics 1990)
- University of Edinburgh (Earth Sciences, 1998)
- University of Texas at Austin (Geological Sciences 1988; Mathematics 1990, 1991; Institute for Geophysics 1990)
- Yale University (Geology and Geophysics 1988; Statistics 1988)

Service

Professional Societies and Government Agencies

2005

Consultant, U.S. Department of Justice, Civil Division
Consultant, Dept. of Veterans Affairs Medical Center
Consultant, Habeas Corpus Resource Center

2004
Reviewer, National Science Foundation
Consultant, U.S. Department of Justice, Civil Division
Consultant, U.S. Attorney's Office
Consultant, Dept. of Veterans Affairs Medical Center
2003
Reviewer, National Science Foundation
Referee, National Sciences and Engineering Research Council of Canada
Consultant, Dept. of Veterans Affairs Medical Center
2002
Consultant, U.S. Department of Agriculture
Consultant, U.S. Department of Justice, Civil Division
2001
Consultant, U.S. Department of Justice, Civil Division
Co-organizer, Institute for Mathematics and Its Applications Annual Program *Mathematics in the Geosciences* and workshop on Inverse Problems and the Quantification of Uncertainty
2000
Discussant, National Academy of Science Committee on National Statistics workshop on dual-system estimation for the 2000 Census
Consultant, U.S. Department of Justice, Civil Division
1998
Witness, U.S. House of Representatives Subcommittee on the Census.
Panelist, National Science Foundation
1997
Session organizer, International Statistical Institute and Bernoulli Society Meeting, Istanbul, Turkey
1996-
Global Oscillation Network Group (GONG) Data Users Committee (Chair, 1996-1998)
Reviewer for United States Geological Survey
1996-1999
Consultant, National Security Agency
1995
Institute of Mathematical Statistics Program Chair, Joint Statistical Meetings of the American Statistical Association, International Biometric Society, and Institute of Mathematical Statistics, Orlando, FL
1994-1996
Consultant to Federal Trade Commission
1993
Session organizer and chair, IMS/ASA/ENAR meeting, Philadelphia, PA
Session organizer and chair, Joint Statistical Meetings of the American Statistical Association, International Biometric Society, and Institute of Mathematical Statistics, San Francisco, CA
1992
Faculty sponsor, Department of Energy TRAC program
1990-1994
Bernoulli Society Committee on Statistics in the Physical Sciences
1991-present
Reviewer for National Aeronautics and Space Administration (Space Physics Division)
1991
Local organizer and session chair, Mathematical Sciences Research Institute Workshop on Statistical Methods in Imaging, Berkeley, CA
1989
Session organizer and chair, Bernoulli Society Satellite Meeting, Leuven, Belgium
1989-present

Reviewer for National Science Foundation (Atmospheric Sciences, Infrastructure, International Programs, Mathematical Sciences, Solar-Terrestrial Program, Statistics and Probability)

Private Industry

2000-2001
Technical Advisory Board, Cogit.com
2000-2002
National Advisory Board, eTextbooksOnline.com
Technical Advisory Board, Atomic Dog Publishing

Editorial Service

1998-1999
Editor, Statistical Science
1997-2000
Editorial Board, Inverse Problems
1994-1998
Associate Editor, Journal of Geophysical Research

Referee Service

- American Association for the Advancement of Science
- Annales Geophysicae
- Annals of the Institute of Statistical Mathematics
- Annals of Statistics
- Arabian Journal for Science and Engineering
- Bulletin of the Seismological Society of America
- Chapman-Hall
- Geophysical Journal International
- Geophysical Research Letters
- Geophysics
- Geophysical & Astrophysical Fluid Dynamics
- HarperCollins
- IEEE Journal on Acoustics, Speech and Signal Processing
- IEEE Journal on Information Theory
- Inverse Problems
- Journal of the American Statistical Association
- Journal of Computational Physics
- Journal of Economic Literature
- Journal of Geophysical Research
- Jurimetrics
- Physics of the Earth and Planetary Interiors
- Science
- SIAM Review
- Simon and Schuster
- Springer-Verlag
- Tectonophysics

University Service

2004-2005
Chair, Educational Technology Committee
e-Berkeley Steering Committee
e-Berkeley Committee of Chairs
e-Berkeley Implementation Task Force
CourseWeb Steering Committee
Faculty Athletic Fellow
2003-2004
Chair, Educational Technology Committee
e-Berkeley Steering Committee
e-Berkeley Implementation Task Force
Student Systems Policy Committee
CourseWeb Steering Committee
2002-2003
Faculty Assistant in Educational Technology (to Vice Provost for Undergraduate Education)
Chair, Educational Technology Committee
Provost's Academic Council
e-Berkeley Steering Committee
e-Berkeley Implementation Task Force
Campus Committee on Classroom Policy and Management (CCCPM)
Student Systems Policy Committee
e-Berkeley Symposium Program Committee
Faculty Search Committee, Graduate School of Education
CourseWeb Steering Committee
2001-2002
Faculty Assistant in Educational Technology (to Vice Provost for Undergraduate Education)
Chair, Educational Technology Committee
Provost's Academic Council
e-Berkeley Steering Committee
e-Berkeley Implementation Task Force
Campus Committee on Classroom Policy and Management (CCCPM)
Academic Senate Committee on Academic Planning and Resource Allocation (CAPRA)
CITRIS II Program Committee
TeleBEARS and Bear Facts Committees (combined into Student Systems Policy Committee as of 3/2002)
e-Berkeley Portal Working Group
Faculty search committee, Graduate School of Education
2000-2001
Space Allocation and Capital Improvements (SACI)
Academic Senate Committee on Academic Planning and Resource Allocation (CAPRA)
CAPRA Subcommittee on Expanded Enrollment
CAPRA Subcommittee on changes to Academic Coordinator title
Ad hoc hiring/tenure committee
1999-2000
Space Allocation and Capital Improvements (SACI)
Academic Senate Library Committee (LIBR)
Academic Senate Committee on Academic Planning and Resource Allocation (CAPRA), Physical Planning Subcommittee, *ex officio* representative from Library Committee
Academic Effects Study Committee, Molecular Engineering Building
Ad hoc tenure/promotion committee
SACI subcommittee to audit space in Barrows Hall

1998-1999
Space Allocation and Capital Improvements (SACI)
Electronic Dissertations Project
Planning Space for the Physical Sciences Libraries
1997-1998
Ad hoc tenure/promotion committee
1996
Review of College of Science, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia
1994-1999
University review committee for Department of Agricultural and Resource Economics, University of California, Berkeley
1993-1995
Physical Sciences Division committee for Graduate Affirmative Action and Retention
Physical Sciences Division committee for Science and Mathematics Academic Re-Training (SMART)

Grants

1. PI, NASA Grant NAG 5-883, "Constructing Core Fields Consistent with Geomagnetic Data and Geophysical Constraints," 1987-1990.
2. Project Director and PI, NSF Grant DMS-8810192, "Inference in Curved-Ray Tomography: Solid Earth Structure," 1989-1992.
3. PI, NSF Grant INT-9205103, "Long and Medium-Term Research: Inference in Seismological Investigations of Subducting Lithosphere," 1992-1994.
4. PI, NSF Grant DMS-930006P, "Estimating the Sun's Internal Angular Velocity from Free-Oscillation Frequency Splittings," 1993-1994.
5. PI, NSF Presidential Young Investigator Award DMS-8957573, 1989-1995.
6. Co-I, NASA Grant NAG5-2438, "The Analysis of Cobe DMR Sky Maps," 1993-1994. PI: J. Silk
7. PI, NASA Grant NAGW-2515, "New Methods for Inversion and Analysis of Solar Free-Oscillation Data," 1991-1995.
8. PI, NSF Grant DMS-9404276, "New Methods for Inference From COBE Data," 1994-1997.
9. PI, NSF Grant AST-9504410, "Function Estimation and Inference in Helioseismology," 1995-1998.
10. PI, LLNL/IGPP Grant 97-AP028, "Helioseismology with Solar Luminosity Constraints," 1996-1997.
11. Co-I, NASA Grant NAG5-3941, "Development of data analysis, compression and visualization tools for large data sets in astrophysics and cosmology," 1997-1998. PI: J. Silk
12. PI, NASA Grant NRA-96-09-OSS-034SOHO, "Modern Statistical Methods for Helioseismic Spectrum Estimation," 1997-1998.
13. PI, NASA Grant NAG 5-3919, "Data Sampling Rate Reduction for the Oersted Satellite," 1997-1998.
14. PI, UC Berkeley Classroom Technologies Grant, "Statistics *Statim*," 1997-1998.
15. Co-I, NSF Grant DMS-9872979,"*KDI: Computational Challenges in Cosmology*," 1998-2000. PI: A. Jaffe.
16. Co-I, NSF Grant IIS-98-17353, "*Re-Inventing Scholarly Information Dissemination and Use*," 4/1/99 - 3/31/2004. PI: R. Wilensky and D. Forsythe.
17. PI, Hewlett Packard Company Grant 89293, "Applied Mobile Technology Solutions in Learning Environments," 3/19/2003-8/31/2004.
18. PI, Hewlett Packard Company Grant 14928, "Applied Mobile Technology Solutions in Learning Environments--2004 Extension Grant," 4/1/2004-6/30/2005.

Consulting

- Brinks, Hofer, Gilson & Lione: sampling in intellectual property litigation

- Cisco Systems: predicting email spool fill.
- City of Santa Rosa, CA: water treatment monitoring.
- Cogit.com, San Francisco, CA: Technical advisory board; targeted web advertising.
- Contra Costa County Public Defender, Richmond, CA: equal protection.
- Crosby, Heafey, Roach, & May, Oakland, CA: insurance litigation (client: Farmer's Insurance).
- Dept. of Veterans Affairs Medical Center, Martinez, CA: speech and non-speech hearing segregation in aging.
- East Bay Municipal Utilities District: water treatment monitoring
- EEG Systems Laboratory, San Francisco, CA: inverse problems for electrical activity of the brain.
- eTextbooksOnline.com, New York, NY: National Advisory board.
- Federal Trade Commission, San Francisco, CA: sampling in litigation.
- Fuller-Austin Joint Defense Group: Modeling in litigation.
- Habeas Corpus Resource Center, San Francisco, CA: Bias in jury selection.
- Howard, Rice, Nemerovski, Canady, Falk, & Rabkin, San Francisco, CA: sampling in litigation; inference from retail sales data (clients K-Mart Corp., R.J. Reynolds Tobacco Co.).
- Kaiser Permanente Northern California, Redwood City, CA: clinical trials in oncology.
- KLA Instruments Corporation, San Jose, CA: calibration of algorithms to detect IC mask flaws.
- Kramer, Levin, Naftalis, & Frankel, New York, NY: sampling in litigation.
- Law Offices of Gorman & Miller, San Jose, CA: trade secret litigation.
- Law Offices of Ilson W. New, San Francisco, CA: natural resource legislation.
- Law Offices of Ramirez, Tollner, Stebbins, Bahrick, & Sasseen, San Jose, CA: trade secret litigation.
- Law Offices of Welebir & McCune, Woodside, CA: product liability litigation.
- Law offices of Wells, Pinckney & McHugh, Austin, TX: employment discrimination arbitration.
- Law Offices of Wolkin & Timpane, San Francisco, CA: insurance litigation.
- Law Offices of Scott K. Zimmerman, Brentwood, CA: product liability litigation.
- Life Chiropractic College West, Hayward, CA: experimental design.
- Los Angeles Superior Court, Central District: sampling in employment wage and hour litigation.
- Mayer, Brown, Rowe & Maw, Chigago, IL: intellectual property litigation
- Morrison & Foerster, San Francisco, CA: product liability class action litigation.
- National Security Agency: adaptive filtering, combining expert opinions, digital communications, information retrieval, estimation.
- National Solar Observatory, Tucson, AZ: spectrum estimation.
- Pacific Gas & Electric Co., San Francisco, CA: statistics and causal inference in litigation.
- Paul Hastings, Washington, DC: intellectual property litigation.
- Schlumberger-Doll Research, Ridgefield, CT: inverse problems, signal processing.
- Shearman & Sterling, Washington, DC: survival analysis.
- Skadden, Arps, Slate, Meagher & Flom LLP, San Francisco, CA: case-control studies.
- Spriggs & Hollingsworth, Washington, DC: environmental litigation
- St. Paul Fire and Marine Insurance Company, Baltimore, MD: projecting tort liability.
- U.S. Attorney's Office, Northern District of California: ethnic bias in grand jury selection
- U.S. Department of Agriculture, Washington, D.C.: fairness in lending.
- U.S. Department of Justice, Civil Division, Federal Programs Branch, Washington, D.C.: sampling the internet and web-browsing behavior; USDA import restrictions on cattle and beef.
- U.S. House of Representatives, Washington, D.C.: sampling to adjust the U.S. Census.
- Willoughby, Stuart & Bening, San Jose, CA: insurance litigation.

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www.stat.berkeley.edu/~stark/bio.htm

P.B. Stark. Last modified 4 February 2006.