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Education

1969 B.S.University of Dayton (Mathematics and Computer Science)

1971 M.S.Purdue University (Mathematical Statistics)

1973 Ph.D.Purdue University (Mathematical Statistics)

Scholarships and Awards

- Thomas Saaty Prize for Applied Advances in the Mathematical and Management Sciences, 2003
- Distinguished Alumni Award, School of Science, Purdue University, 1999
- Fulbright Scholarship (visited Ludwig Maximilians Universität in Munich, Germany), 1996
- Fellow, Institute of Mathematical Statistics, 1996
- Elected ordinary member of the International Statistical Institute, 1993
- Fellow, American Statistical Association, 1989
- College of Engineering (Cornell University) Top 10 Teaching Award in 1975, 76, 81, 84
- School of Operations Research and Industrial Engineering (Cornell University) Outstanding Teacher Award in 1976, 78, 83, 84
- Outstanding Graduate Student Award Department of Statistics, Purdue University, 1973
- NSF Graduate Fellowship, 1969-72

Positions

06-07 Visiting Professor, ISDS, Duke University

SP06 Visiting Professor, Department of Mechanical Engineering, Cornell University

96-97 Visiting Scholar, Ludwig Maximilians University, Munich, Germany

95- Adjunct Senior Scientist in the Muculoskeletal Integrity Program, Research Division, The Hospital for Special Surgery, New York City, NY

92-00 Chair, Department of Statistics, The Ohio State University, Columbus, Ohio

90- Professor, Department of Statistics, The Ohio State University, Columbus, Ohio

1987 Visiting Professor, Purdue University, West Lafayette, Indiana

86-89 Professor, School of Operations Research and Industrial Engineering, Cornell University

81-82 Visiting Scholar, Department of Biostatistics, University of Washington, Seattle, WA

80-86 Associate Professor, School of Operations Research and Industrial Engineering, Cornell University

78-79 Visiting Scientist, Biometrics Unit, National Cancer Institute, Bethesda, MD

73-80 Assistant Professor, School of Operations Research and Industrial Engineering, Cornell University

1973 Instructor, Department of Statistics, Purdue University

1972 Research Assistant, Department of Statistics, Purdue University

69-72 NSF Graduate Fellow, Department of Statistics, Purdue University

Professional Experience

07-09 ASA Board of Directors and Council of Sections Governing Board

05-06 ASA Committee on Nominations

03-05 Chair-Elect, Chair, Past-Chair: ASA Council of Sections Governing Board

98,99 National Science Foundation Statistics and Probability Screening Panel

98-00 Member, ASA Publications Management Committee

93-96 Editor, *Contemporary Statistics* book series published by the American Statistical Association

92-00 Chair, Department of Statistics, Ohio State University

90-92 Director, Statistical Consulting Service, Ohio State University

91-93 Co-Editor, *The Statistical Consultant*

89-92 Associate Editor, *J. Statist. Planning and Inference*

85-87 Editorial Board, *J. Communications in Statistics*

85-86 Associate Editor, *Biometrics*

85-90 Associate Editor, *J. Amer. Statist. Assoc.*

83-86 Director and Graduate Studies Chair, Cornell University Statistics Center

81- The Hospital for Special Surgery: Cornell Medical School (New York City) - consultant on statistical problems arising in biomechanical engineering and biomedical research

81-82 Fred Hutchinson Cancer Research Center (Seattle, WA) - consultant on statistical problems in bone marrow transplant treatment of aplastic anemia patients

1979 National Cash Register (Ithaca, NY) - consultant on reliability problems

78-79 Biometry Branch, National Cancer Institute (Bethesda, MD)—consultant on statistical problems related to biomedical research

1977 Xerox Corporation (Rochester, NY)—consultant on statistical problems related to inventory work

Professional Associations

American Statistical Association, Biometric Society (ENAR), Institute of Mathematical Statistics, International Statistical Institute
Reviewer for *Mathematical Reviews* and many other journals
Reviewer for NSF, NIH and other funding agencies

Research Areas

Design and Analysis of Computer Experiments, Design and Analysis of Physical Experiments for Selection and Screening, Analysis of Discrete Data, Applications of Statistics to Biomedical Research

Grants

1. Principal Investigator, Hospital for Special Surgery and Cornell University Biomechanics Program, "Statistical analysis of knee wear," 1998-present, $240,000
2. Principal Investigator National Science Foundation, "Collaborative research: Methodology for computer experiments with special application to orthopedic research," Collaboration with Cornell University (D. Bartel, PI at Cornell University), 2004-2007, $70,000
3. Co-Principal Investigator (Isabelle Denry, PI), Nat. Inst of Dental & Craniofacial Research, "High toughness textured ceramics for biomedical use," 2000-2006, $252,590
4. Co-Principal Investigator (D. Bartel, PI for Cornell University aspect of this project), Hospital for Special Surgery and Cornell University Biomechanics Program, "Optimal Design of Unicondylar Knee Prostheses," 2000-2005, ($25,878 in 2005)
5. Co-Principal Investigator (Noel Cressie, PI) EPA and the American Chemistry Council "From sources to biomarkers: A hierarchical bayesian approach for human exposure modeling," 28 Sept 2004-27 Sept 2007, $450,000
6. Co-Principal Investigator (with D. Bartel), NIH Grant (R01-AR-42737-01A2), Optimal Design of THA-Random Load & Bone Variation, 1996-2000
7. Co-Principal Investigator (with several OSU faculty), NSF SCREMS equipment grant 1993-94
8. Principal Investigator, National Highway Traffic Administration, 1990–91
9. Co-Principal Investigator (with D. Bartel), Cornell Biomechanical Engineering Program 1982–89
10. Principal Investigator, Ohio State University Seed Grant Program, 1990–91 (RA support)
11. Co-Principal Investigator, Mathematical Sciences Institute, Cornell University, 1986–89
12. Co-Principal Investigator (with several Cornell faculty), AT&T Foundation equipment grant, 1986
13. Co-Principal Investigator (with B. Turnbull), NSF Grant (ENG75 - 10487 AU2), 1977–79
14. Principal Investigator, NSF Initiation Grant (ENG75-10487), 1975–76

Publications

Books

1. T. J. Santner and A. C. Tamhane (co-editors) (1984) *Design of Experiments–Ranking and Selection: Essays in Honor of Robert E. Bechhofer*, M. Dekker, New York.
2. T. J. Santner and D. E. Duffy (1989) *The Statistical Analysis of Discrete Data*, Springer-Verlag, Inc.
3. R. E. Bechhofer, T. J. Santner, and D. M. Goldsman (1995) *Design and Analysis of Experiments for Statistical Selection, Screening, and Multiple Comparisons*, J. Wiley and Sons.
4. T. J. Santner, B. J. Williams, and W. I. Notz (2003) *The Design and Analysis of Computer Experiments*, Springer-Verlag, Inc.

Papers

1. S. S. Gupta and T. J. Santner (1973) "On Selection and Ranking Procedures–a Restricted Subset Selection Rule" in *Proceedings of the 39th Session of the International Statistical Institute;* Vienna, Austria, **1**, 409–417.
2. T. J. Santner (1975) "A Restricted Subset Selection Approach to Ranking and Selection Problems," *Annals of Statistics,* **3**, 334–349.
3. T. J. Santner (1976) "A Two-Stage Procedure for Selection of δ*-Optimal Means in the Normal Case," *in Communications in Statistics - Theory and Methods,* **A5**, 283–292.
4. T. J. Santner (1976) "A Generalized Goal in Restricted Subset Selection Theory," *Sankhyā: The Indian Journal of Statistics,* Ser. B., **38**, 129–143.
5. R. E. Bechhofer, T. J. Santner, and B. W. Turnbull (1977) "Selecting the Largest Interaction in a Two Factor Experiment," *Statistical Decision Theory and Related Topica II* (Editors: S. S. Gupta and D. S. Moore), Academic Press, New York, 1–18.
6. Y. Rinott and T. J. Santner (1977) "An Inequality for Multivariate Normal Probabilities with Application to a Design Problem," *Annals of Statistics,* **56**, 1228–1234.
7. S. Panchapakesan and T. J. Santner (1977) "Subset Selection for Δ_p-superior Populations," *Comm. Statist. - Theory and Methods,* **A6**, 1081–1090.
8. J. Hooper and T. J. Santner (1979) "Design of Experiments for Selection from Ordered Families of Distributions," *Annals of Statistics,* **7**, 615–643.
9. M. H. Gail, T. J. Santner, and C. C. Brown (1980) "An Analysis of Comparative Carcinogenesis Experiments Based on Multiple times of Tumor," *Biometrics,* **36**, 255–266.
10. M. Snell and T. J. Santner (1980) "Small Sample Confidence Limits for $p_1 - p_2$ and p_1/p_2 in 2×2 Contingency Tables," *J. Am. Stat. Assoc.,* **75**, 386–394.
11. T. J. Santner (1981) "Designing Two-Factor Experiments for Selecting Interactions," *in Journal of Statistical Planning and Inference,* **5**, 45–55.
12. M. Blackman, B. Weintraub, I. Kourides, J. Solano, T. J. Santner, and S. Rosen (1981) "Discordant Elevation of the Common Alpha Unit of Glycoprotein Hormones in Serum of Uremic Patients," *J. of Clinical Endocrinology and Metabolism,* **53**, 39–48.

13. L. V. Rubenstein, M. H. Gail, and T. J. Santner (1981), "Planning the Duration of a Comparative Clinical Trial with Loss to Follow-up and a Period of Continued Observation," *J. Chron. Diseases,* **34** 469–479.

14. S. Mykytyn and T. J. Santner (1981) "Maximum Likelihood Estimation of the Survival Function Based on Censored Data Under Hazard Rate Assumptions," *Commun. Statist. - Theor. Meth.,* **A10**, 1369–1387.

15. A. Ighodaro and T. J. Santner (1982) "Analogues of Ridge Estimators for Contingency Tables," *Proceedings of the Third Purdue Symposium on Statistical Decision Theory and Related Topics* (Editors: S. Gupta and J. Berger), **2**, 31–53.

16. A. Ighodaro, T. J. Santner, and L. Brown (1982) "Some Admissibility and Complete Class Results for the Multinomial Estimation Problem under Entropy and Squared Error Loss," *Journal of Multivariate Analysis,* **12**, 469–479.

17. J. Wulff, T. J. Santner, R. Storb, M. Ranaji, C. Buckner, P. Stewart, J. Sanders, S. Slichter, and E. D. Thomas (1983) "Transfusion Requirements after HLA - Identical Marrow Transplantation in 82 Patients with Aplastic Anemia," *Vox Sanguinis,* **44**, 366–374.

18. T. J. Santner (1983) "Fundamentals of Statistics for Orthopaedists: Part I," *J. Bone and Joint Surgery,* **66-A**, 468–471.

19. R. Tenga and T. J. Santner (1984a) "Testing Goodness-of-Fit to the Increasing Hazard Rate Family," *Nav. Res. Logistic Quarterly,* **31**, 617–630.

20. R. Tenga and T. J. Santner (1984b) "Testing Goodness-of-fit to the Increasing Hazard Rate Family with Censored Data," *Nav. Res. Logistic Quarterly,* **31**, 631–646.

21. T. J. Santner and A. Burstein (1984) "Fundamentals of Statistics for Orthopaedists: Part II," *J. Bone and Joint Surgery,* **66-A**, 794–799.

22. T. J. Santner and A. C. Tamhane (1984) "Designing Experiments for Selecting a Normal Population with a Large mean and a Small Variance," *Design of Experiments–Ranking and Selection: Essays in Honor of Robert E. Bechhofer* (Editors: T. J. Santner and A. C. Tamhane), 179–198.

23. T. J. Santner and A. C. Tamhane (1984) "Robert E. Bechhofer's Contributions to Statistics," *Design of Experiments–Ranking and Selection: Essays in Honor of Robert E. Bechhofer* (Editors: T. J. Santner and A. C. Tamhane), xii–xxii.

24. T. J. Santner and D. Wypij (1984) "Fundamentals of Statistics for Orthopaedists: Part III," *J. Bone and Joint Surgery,* **66-A**, 1309–18.

25. S. Panchapakesan and T. J. Santner (1985) "Shanti S. Gupta - An Appreciation," *J. Mathematical and Management Sciences,* **5**, 347–369.

26. T.M. Wright, J. Carr, and T. J. Santner (1985) "Diagnosis of Loose or Damaged Total Joint Replacement Components," *Nondestructive Testing Handbook,* (Am. Society for Nondestructive Testing), **5**, 461–465.

27. T. J. Santner and D. E. Duffy (1986) "A Note on Albert and Anderson's Conditions for the Existence of Maximum Likelihood Estimates in Logistic Regression," *Biometrika,* **73**, 755–758.

28. T. J. Santner and D. Wypij (1987) "Fundamentals of Statistics for Orthopaedists: Part IV (Retrospective Studies)," *J. Bone and Joint Surgery,* **69-A**, 463–470.

29. D. Duffy and T. J. Santner (1987) "Confidence Intervals for a Binomial Parameter Based on Multistage Tests," *Biometrics,* **43**, 81–94.

30. D. Duffy and T. J. Santner (1988) "Estimating Logistic Regression Probabilities," *Statistical Decision Theory and Related Topics,* (Editors: S. S. Gupta and J. Berger), **IV,** Springer-Verlag, 177–194.

31. D. Duffy and T. J. Santner (1989) "On the Small Sample Properties of Restricted Maximum Likelihood Estimators for Logistic Regression Models," *Comm. Statistics A: Theor. Meth.*, **18**, 959–980.

32. T. Lehman, M. Reichlin, T. J. Santner, E. Silverman, R.E. Petty, C. Spencer, and J. Harley (1989) "Maternal Antibodies to Rho-SSA are Associated with Early Onset of Disease and Male Sex Among Children with Systemic Lupus Erythematosus," *Arthritis and Rheumatism,* **32,** 1414-1420.

33. D. Wypij and T. J. Santner (1990) "Interval Estimation of the Marginal Probability of Success for Beta-Binomial Data," *Journal of Statistical Computation Simulation,* **35,** 169–185.

34. T. J. Santner and D. Duffy (1990) Letter to Editors of *American Scientist* concerning "Statistical Analysis and the Illusion of Objectivity" by Berger and Berry.

35. J. Otis, R. Warren, S. Backus, T. J. Santner, and J. Mabrey (1990) "Torque Production in the Shoulder of the Normal Young Adult Male; the Interaction of Function, Dominance, Joint Angle, and Angular Velocity," *The Amer. J. of Sports Medicine,* **18** No. 2, 119–123.

36. C. Czado and T. J. Santner (1992) "Orthogonalizing Parametric Link Transformation Families in Binary Regression Analysis," *Canadian J. Statistics*, **20**, 51–61.

37. P. Torzilli, R. Panariello, A. Forbes, T. J. Santner, and R. Warren (1991) "A Quantification of the Measurement Reproducibility of Two Commercial Knee Test Devices," *Journal Orthopedic Research*, **9**, 730–737.

38. T. J. Santner and A. J. Hayter (1992) "The Least Favorable Configuration for a Two-Stage Procedure for Selecting the Largest Normal Mean," *Proceedings of Dunnett Symposium*, 247–265.

39. C. Czado and T. J. Santner (1992) "The Effect of Link Misspecification in Binary Regression Models," *J. Statist. Planning and Inference,* **33**, 213–231.

40. T. J. Santner and M. Behaxeteguy Heffernan (1992) "A Two-Stage Procedure for Selecting the Best Normal Population whose First Stage Selects a Bounded Random Number of Populations," *Journal of Statistical Planning and Inference,* **31**, 147–168.

41. D. Wypij and T. J. Santner (1992) "Pseudotable Methods for the Analysis of 2×2 Tables," *Computational Statistics and Data Analysis*, **13**, 173–190.

42. T. J. Santner and S. Yamagami (1993) "Invariant Small Sample Confidence Intervals for the Difference of Two Success Probabilities," *Communications in Statistics: Simulation and Computation*, **22(1)**, 33–59.

43. M. Peruggia, T. J. Santner, Y.-Y Ho, and N. J. McMillan (1994) "Hierarchical Bayes Analysis of Circular Data with Autoregressive Errors – Modeling the Mechanical Prop-

erties of Cortical Bone," *Proceedings of the Fifth Purdue Symposium on Statistical Decision Theory and Related Topics* (Editors: S.S. Gupta and J. O. Berger), 201–220.

44. C. Rimnac, A. Petko, T. J. Santner, and T. Wright (1993) "The Effect of Temperature, Stress, and Microstructure on the Creep of Compact Bovine Bone," *Journal of Biomechanics*, **26**, 219–228.
45. A. Forbes and T. J. Santner (1993) "A Note on Simple Conditions for the Asymptotic Normality of the Conditional Maximum Likelihood Estimator in Log Odds Regression," *Probability and Statistics Letters*, **18**, 137–146.
46. R. Ostrum, G. Verghese, and T. J. Santner (1993) "The Lack of Association Between Femoral Shock Fractures and Hypotensive Shock," *Journal of Orthopaedic Trauma*, **7**, 338–342.
47. J. Otis, C-C. Jiang, T. Wickiewicz, M. Peterson, R. Warren, and T. J. Santner (1994) "Changes in the Moment Arms of the Rotator Cuff and Deltoid Muscles with Abduction and Rotation," *Journal Bone and Joint Surgery*, **76-A**, 667–676.
48. A. Forbes and T. J. Santner (1995) " Estimators of Odds Ratio Regression Parameters in Matched Case-Control Studies with Covariate Measurement Error" *Journal American Statistical Association*, **90**, 1075–1086.
49. M. Peruggia and T. J. Santner (1996) "Bayesian Analysis of Time Evolution of Earthquake," *Journal American Statistical Association*, **91**, 1209–1218.
50. S. Kurtz, C. Rimnac, T. J. Santner, and D. Bartel (1996) "Exponential Model for the Tensile True Stress–Strain Behavior of As–Irrradiated and Oxidatively Degraded Ultra High Molecular Weight Polyethylene," *Journal of Orthopedic Research*, **14**, 755–761.
51. T. J. Santner and G-H. Pan (1997) " Subset Selection in Two-Factor Experiments Using Randomization Restricted Designs," *J. Statist. Planning and Inference*, **62**, 339–363.
52. G-H. Pan and T. J. Santner (1997) "Designing Two-Factor Experiments for Selection that Allow Randomization Restrictions," *Sankya B*, **59**, 181–199.
53. T. J. Santner and G-H. Pan (1997) "The Use of Subset Selection in Combined Array Experiments to Determine Optimal Product or Process Designs," *Advances in Statistical Decision Theory and Applications* (eds. S. Panchapakesan and N. Balakrishnan), Birkhäuser, 417-430.
54. G-H. Pan and T. J. Santner (1998) "Selection and Screening Procedures to Determine Optimal Product Designs," *J. Statist. Planning and Inference*, **67**, 311-330.
55. T. J. Santner (1998) "A Note on Teaching Large–Sample Binomial Confidence Intervals," *Teaching Statistics*, **20**, 20-23.
56. M. Lenhoff, T. J. Santner, J. Otis, M. Peterson, B. J. Williams, and S. Backus (1999) "Bootstrap Prediction and Confidence Bands: a Superior Statistical Method for Analysis of Gait Data," *Gait and Posture*, **9**, 10-17.
57. P. B. Chang, B. J. Williams, T. J. Santner, W. I. Notz, and D. L. Bartel (1999) "Robust Optimization of Total Joint Replacements Incorporating Environmental Variables," *Journal of Biomechanical Engineering*, **121**, 304-310.
58. S. Zhang, T. J. Santner, W. I. Notz, and D. L. Bartel, "Empirical BLUPs for Computer Experiments based on Spectral Density Estimation," in revision.

59. B. J. Williams, T. J. Santner, and W. I. Notz (2000) "Sequential Design of Computer Experiments to Minimize Integrated Response Functions," *Statistica Sinica*, **10**, 1133-1152.

60. S. R. Simon, S. G. Tejwani, D. L. Wilson, T. J. Santner, and N. L. Denniston (2000) "Evaluation of Arthrodesis as an Early Surgical Alternative to Conservative Management of Charcot Arthropathy of the Diabetic Foot," *Journal of Bone and Joint Surgery*, **82-A**, 939–950.

61. P. B. Chang, B. J. Williams, K. S. Bawa Bhalla, T. W. Belknap, T. J. Santner, W. I. Notz, and D. L. Bartel (2001) "Robust Design and Analysis of Total Joint Replacements: Finite Element Model Experiments with Environmental Variables," *Journal of Biomechanical Engineering*, **123**, 239-246.

62. T. J. Santner (2001) discussion of "Interval Estimation for a Binomial Parameter" (by Lawrence Brown, T. Tony Cai and Anirban Das Gupta), *Statistical Science*, **16**, 126-128.

63. W. I. Notz, T. J. Santner, and J. Lehman (2001) discussion of "Bayesian Calibration of Computer Models" (by M. C. Kennedy and A. O'Hagan), *Journal of the Royal Statistical Society B*, **63**, 425–464.

64. T. J. Santner and Dennis Pearl (2001) "Remembering Robert Bartoszyński," *Mathematical & Computational Modeling*, **33**, xv-xvii.

65. T. J. Santner and S. Panchapakesan (2002) "Professor Shanti Swarup Gupta" in *J. Mathematical and Management Sciences*, **22**, 173-198.

66. G-H. Pan, T. J. Santner, and D. Goldsman (2003) "The Planning and Analysis of Industrial Selection and Screening Experiments," in *Handbook of Statistics: Industrial Experimentation*, (Editors: R. Khattree and C. R. Rao) **22**, Elsevier Science. Amsterdam, New York, 75-129.

67. J. Lehman, T. J. Santner, and W. I. Notz (2004) "Design of Computer Experiments to Determine Robust Control Variables," *Statistica Sinica*, **14**, 571-580.

68. M. Peruggia, T. J. Santner, Y.-Y. Ho (2004) "Detecting Stage-Wise Outliers in Hierarchical Bayesian Models of Repeated Measures Data," *Annals of the Institute of Statistical Mathematics*, **56**, 415-433.

69. G-H. Pan and T. J. Santner (2004) "Theory of Screening Procedures to Identify Robust Product Designs Using Fractional Factorial Experiments," *Journal of Statistical Planning and Inference*, **125**, 59-84.

70. K. Ong,, J. Lehman, W. I. Notz, T. J. Santner, and D. L. Bartel (2006) "Acetabular Cup Geometry and Bone-Implant Interference have More Influence on Initial Periprosthetic Joint Space than Joint Loading and Surgical Cup Insertion," *Journal of Biomechanical Engineering*, **148**, 169-175.

71. S. M. Bortnick, A. M. Dean, and T. J. Santner (2006) "Optimal Lower Confidence Bounds for Treatment Comparisons with a Control," *Biometrika*, **97**, 127-135.

72. P. F. Craigmile, N. A. Cressie, T. J. Santner, and Y. Rao (2006) "Bayesian Inferences on Environmental Exceedances and Their Spatial Locations," *Extremes*, **8**(3), 143-159.

73. M. Pavlicová, N. Cressie, and T. Santner (2006) "Testing for Activation in Data from fMRI Experiments," *Journal of Data Science*, **4**, 275-289.

74. I. Olkin, T. J. Santner, and Y. Tong (2006) "The Scientific Contributions of Milton Sobel," *Probability in the Engineering and Informational Sciences*, **20**, 383-411.

75. N. A. Cressie, B. E. Buxton, C. A. Calder, P. F. Craigmile, C. Dong, N. J. McMillan, M. Morara, T. J. Santner, K. Wang, G. Young, and J. Zhang (2007) "From Sources to Biomarkers: A Hierarchical Bayesian Approach for Human Exposure Modeling," *Journal of Statistical Planning and Inference*, **137**, 3361-3379.

76. T. J. Santner, V. Pradhan, P. Senchaudhuri, C. Mehta, and A. Tamhane (2007) "Comparisons of Confidence Intervals for the Difference of Two Independent Binomial Proportions," *Computational Statistics and Data Analysis*, **51**, 5791–5799.

77. K. Ong, T. J. Santner, and D. L. Bartel "Robust Design for Acetabular Cup Stability Accounting for Patient and Surgical Variability," to appear in *Journal of Biomechanical Engineering*.

78. G. Han, T. J. Santner, W.I. Notz, and D. L. Bartel "Prediction for Computer Experiments Having Quantitative and Qualitative Input Variables," under revision for *Technometrics*.

79. T. J. Santner, P. F. Craigmile, C. A. Calder, and R. Paul "Effect and Pathways Modifiers in a Bayesian Pathways Analysis of the National Human Exposure Assessment Survey for Arsenic in EPA Region 5," to appear in *Environmental Science & Technology*.

80. M. Pavlicová, T. Santner, and N. Cressie (2007) "Detecting Signals in FMRI Data Using Powerful FDR Procedures," to appear in *Statistics and Its Interface*.

81. Jason P Long, Thomas J Santner, and Donald L Bartel (2008) "Hip Resurfacing Increases Bone Strains Associated with Short-Term Femoral Neck Fracture," submitted.

82. B. J. Williams, T. J. Santner, J. Lehman, and W. I. Notz "Sequential Design of Computer Experiments for Constrained Optimization," submitted.

83. S. R. Simon, D. L. Wilson, T. J. Santner, and N. L. Denniston "Comparison of Ambulation and Joint Motion in Hinged and Rigid Ankle-Foot-Orthoses Using Gait Analysis," in revision.

Abstracts and Posters

1. M. Figgie, T. Wright, T. Santner, D. Fisher, A. Forbes (1989) "Performance of Dome-shaped Patellar Components in Total Knee Arthroscopy," Poster Presentation, *35th Annual Meeting of the Orthopedic Research Society*.

2. M. Peruggia, T. J. Santner, and L. Ladellii (1993) "Bayesian Analysis of Space-Time Evolution of Earthquakes" Extended Abstract, *49th Biennial Session of the International Statistical Institute*, Florence.

3. C. Rimnac, R. Klein, A. Brustein, T. Wright, and T. J. Santner (1994) "*In Vitro* Chemical and Mechanical Degradation of UHMWPE: One Year Results," Poster Presentation, *40th Annual Meeting of the Orthopedic Research Society*.

4. T. Baldini, K. Menschik, S. J. Gadaleta, J. Afthinos, J. Shea, M. Peterson, T. J. Santner, and C.M. Rimnac (1997) "The Effect of Nandrolone Decanoate on the Mechanical and Physical Properties of Lumbar Vertebrae for Ovariectomized Monkeys," Podium Presentation, *43th Annual Meeting of the Orthopedic Research Society*.

5. L. Duius, T. J. Santner, B. J. Williams, and S. Li (1997) "The Mathematical Modeling of Process Variables in the Control of the Physical Properties of Ultra High Molecular Weight Polyethylene," Poster Presentation, *43th Annual Meeting of the Orthopedic Research Society*.
6. L. Duius, T. J. Santner, B. J. Williams, and S. Li (1998) "Controlling the Physical Properties of Molded UHMWPE Through Predictable Interactions Between Processing Variables," Poster Presentation, *24th Annual Meeting of the Society for Biomaterials*.
7. L. Duius, T. J. Santner, B. J. Williams, and S. Li (1998) "Controlling the Physical Properties of Molded UHMWPE Through Predictable Interactions Between Processing Variables," Poster Presentation, *44th Annual Meeting of the Orthopedic Research Society*.
8. P. B. Chang, B. J. Williams, T. J. Santner, and D. L. Bartel (1998) "Optimization of a Flexible Hip Implant Incorporating in-Vivo Variations in Joint Force and Bone Properties," Podium presentation, *44th Annual Meeting of the Orthopedic Research Society*.
9. P. B. Chang, B. J. Williams, Balla Bawa, T. W. Belnap, T. J. Santner, W. I. Notz, and D. L. Bartel (1999) "A Robust Flexible Hip Implant" Podium Presentation, *45th Annual Meeting of the Orthopedic Research Society*.
10. K. Ong, K. Gunsallus, B. J. Williams, J. Lehman, T. Santner, and D. Bartel (2002) "Acetabular Cup Designs Have More Influence on Mechanical Stability Than Joint Loading and Surgical Variations," Poster Presentation, *48th Annual Meeting of the Orthopedic Research Society*.
11. M. Pavlicová, N. Cressie, and T. J. Santner (2003) "Using Enhanced FDR to Find Activation in FMRI Images," (poster presented with the modified title "Modifying the FDR Procedure for use with FMRI Data") *NeuroImage*, **19**, S910.
12. K. Ong, Z. Cui, T. Santner, W. Notz, and D. Bartel (2004) "Stochastic Analysis of Acetabular Component Stability incorporating patient-dependent and surgical variability," Poster Presentation, *50th Annual Meeting of the Orthopedic Research Society*.
13. N. A. Cressie, B. E. Buxton, C. A. Calder, P. F. Craigmile, C. Dong, N. J. McMillan, M. Morara, T. J. Santner, K. Wang, G. Young, and J. Zhang (2006) "From Sources to Biomarkers: A Hierarchical Bayesian Approach for Human Exposure Modeling" Poster Presentation, *International Council of Chemical Associations Biomonitoring Workshop*.

Conference Proceedings

1. Y-Y. Ho, M. Peruggia, and T. J. Santner (1995) "Diagnostics for Heirarchical Bayesian Repeated Measures Models," in *27th Symposium of the Interface: Computing Science and Statistics*, Interface Foundation of North America (Fairfax Station, VA), 387–391.
2. M. Pavlicová, N. Cressie, and T. J. Santner (2003) "Spatial Statistics and fMRI," in *Proceedings of the 12th Workshop on Stochastic Geometry, Stereology and Image Analysis*, Prague, Czech Republic, 29.
3. M. Pavlicová, N. Cressie, T. J. Santner, and A. Algaze, "Using Enhanced FDR to Find Activation in FMRI Images," *NeuroImage*, **19**, S910.
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