

CURRICULUM VITAE

John Stufken

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PERSONAL DATA

PLACE OF BIRTH Schaesberg, The Netherlands

DATE OF BIRTH February 1, 1956

CURRENT EMPLOYER University of Georgia

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EDUCATION

- Ph.D. in Mathematics, with Statistics as Major, University of Illinois at Chicago, 1986. (Dissertation advisor A. S. Hedayat).
- Doctoraal in Mathematics, with thesis in Mathematical Economics, University of Nijmegen, The Netherlands, 1982.
- Kandidaats in Mathematics, with a Minor in Physics, University of Nijmegen, The Netherlands, 1979.

POSITIONS HELD

- Head and Professor, University of Georgia, Department of Statistics, Aug. 2003 - present
- Program Director of Statistics, Division of Mathematical Sciences at the National Science Foundation, Aug. 2000 - Aug. 2003. (As rotator from Aug. 2000 - Aug. 2002 and as permanent employee from Aug. 2002 - Aug. 2003.)

- Full Professor, Iowa State University, Department of Statistics, Aug. 1997 - 2002 (Aug. 2000 - Aug. 2002 on leave).
- Associate Professor, Iowa State University, Department of Statistics, Aug. 1992 - June 1997.
- Visiting Associate Professor, University of Illinois at Chicago, Department of Mathematics, Statistics, and Computer Science, Spring 1994.
- Assistant Professor, Iowa State University, Department of Statistics, Aug. 1988 - June 1992.
- Associate Professor, University of Georgia, Department of Statistics, Aug. 1989 - June 1990 (on leave).
- Assistant Professor, University of Georgia, Department of Statistics, Aug. 1986 - June 1989 (Aug. 1988 - June 1989 on leave).
- Visiting Assistant Professor, University of Illinois at Chicago, Department of Mathematics, Statistics, and Computer Science, Fall 1987.
- Teaching Assistant, University of Illinois at Chicago, Spring 1982 - Spring 1986, except Winter 1986.
- Research Assistant, University of Illinois at Chicago, Winter 1986.
- Graduate Assistant, University of Nijmegen, The Netherlands, Fall 1981.

HONORS AND AWARDS

- Received the “Doctoraal” degree cum laude at the University of Nijmegen.
- Received a Graduate Fellowship at the University of Illinois at Chicago for three consecutive years.
- Received the M. G. Michael Award for Excellence in Research from the Franklin College of Arts and Sciences, University of Georgia, 1988.
- Elected to Fellowship in the Institute of Mathematical Statistics, 2000.
- Selected as “Teacher of the Year” by the Iowa Stat-ers (the graduate student organization in the Department of Statistics at Iowa State University), 1999/2000.
- Elected to Fellowship in the American Statistical Association, 2001.
- Elected Member International Statistical Institute, 2005.
- Rothschild Distinguished Visiting Fellowship, Isaac Newton Institute for Mathematical Sciences, August 2011

RESEARCH PUBLICATIONS

- **Books**

1. Hedayat, A.S., Sloane, N.J.A., and Stufken, J. (1999). *Orthogonal Arrays: Theory and Applications*. Springer Series in Statistics, **Springer Verlag**, New York.

- **Refereed publications**

1. Stufken, J. (1987). A-optimal block designs for comparing test treatments with a control. **Annals of Statistics** 15, 1629-1638.
2. Cheng, C.-S., Majumdar, D., Stufken, J., and Ture, T. E. (1988). Optimal step type designs for comparing test treatments with a control. **Journal of the American Statistical Association** 83, 477-482.
3. Hedayat, A., Rao, C. R., and Stufken, J. (1988). Sampling plans excluding contiguous units. **Journal of Statistical Planning and Inference** 19, 159-170.
4. Stufken, J. (1988). On bounds for the efficiency of block designs for comparing test treatments with a control. **Journal of Statistical Planning and Inference** 19, 361-372.
5. Stufken, J. (1988). On the existence of linear trend-free block designs. **Communications in Statistics - Theory and Methods** 17, 3857-3863.
6. Hedayat, A., and Stufken, J. (1989). On the maximum number of constraints in orthogonal arrays. **Annals of Statistics** 17, 448-451.
7. Hedayat, A., Stufken, J., and Landgev, I. N. (1989). The possible support sizes for BIB designs with $v = 8$ and $k = 4$. **Journal of Combinatorial Theory, Series A** 51, 258-267.
8. Hedayat, A., and Stufken, J. (1989). A relation between pairwise balanced and variance balanced block designs. **Journal of the American Statistical Association** 84, 753-755.
9. Hedayat, A., Lin, B. Y., and Stufken, J. (1989). The construction of IIPS sampling designs through a method of emptying boxes. **Annals of Statistics** 17, 1886-1905.
10. Stufken, J. (1991). Some families of optimal and highly efficient repeated measurements designs. **Journal of Statistical Planning and Inference** 27, 75-83.
11. Stufken, J. (1991). On group divisible treatment designs for comparing test treatments with a standard treatment in blocks of size 3. **Journal of Statistical Planning and Inference** 28, 205-221.
12. Stufken, J. (1991). Bayes A-optimal and efficient block designs for comparing test treatments with a standard treatment. **Communications in Statistics - Theory and Methods** 20, 3849-3862.
13. Hedayat, A., and Stufken, J. (1992). Some mathematical results on incomplete orthogonal arrays. **Sankhyā** Special Volume 54, 197-202. (Special Volume of Sankhyā in memory of R. C. Bose).
14. Stufken, J. (1992). On hierarchical partitioning. Letter to the Editor, **The American Statistician** 46, 70-71.
15. Hedayat, A., Pu, K., and Stufken, J. (1992). On the construction of asymmetrical orthogonal arrays. **Annals of Statistics** 20, 2142-2152.
16. Stufken, J., and Kim, K. (1992). Optimal group divisible treatment designs for comparing a standard treatment with test treatments. **Utilitas Mathematica** 41, 211-227.

17. Stufken, J., and Wang, K.-J. (1992). Factorial designs and the theory of trade-off. **Statistics and Probability Letters** 15, 369-372.
18. Stufken, J. (1993). Combinatorial and statistical aspects of sampling plans to avoid the selection of adjacent units. **Journal of Combinatorics, Information and System Sciences** 18, 81-92. (Special issue in honor of C. R. Rao).
19. Kim, K., and Stufken, J. (1995). On optimal block designs for comparing a standard treatment to test treatments. **Utilitas Mathematica** 47, 211-224.
20. Hedayat, A., Stufken, J., and Zhang, W. G. (1995). Contingently and virtually balanced incomplete block designs. **Statistica Sinica** 5, 575-591. (Invited contribution to special section on optimal design of experiments.)
21. Hedayat, A., Stufken, J., and Zhang, W. G. (1995). Virtually balanced incomplete block designs for $v = 22$, $k = 8$, and $\lambda = 4$. **Journal of Combinatorial Designs** 3, 195-201.
22. Stufken, J. (1996). Optimal crossover designs. In: **Handbook of Statistics 13: Design and Analysis of Experiments**, S. Ghosh and C.R. Rao, eds., pp. 63-90. North-Holland, Amsterdam.
23. Hedayat, A.S., Stufken, J. and Su, G. (1996). On difference schemes and orthogonal arrays of strength t . **Journal of Statistical Planning and Inference** 56, 307-324.
24. Sloane, N.J.A., and Stufken, J. (1996). A linear programming bound for orthogonal arrays with mixed levels. **Journal of Statistical Planning and Inference** 56, 295-305.
25. Hedayat, A., Seiden, E., and Stufken, J. (1997). On the maximal number of factors and the enumeration of 3-symbol orthogonal arrays of strength 3 and index 2. **Journal of Statistical Planning and Inference** 58, 43-63. (Special issue in honor of Paul Erdős.)
26. See K., Song, S.Y., and Stufken, J. (1997). On a class of partially balanced incomplete block designs with applications in survey sampling. **Communications in Statistics** 26, 1-13.
27. Hedayat, A., Stufken, J., and Su, G. (1997). On the construction and existence of orthogonal arrays with 3 levels and indexes 1 and 2. **Annals of Statistics** 25, 2044-2053.
28. Hedayat, A., and Stufken, J. (1998). Sampling designs to control selection probabilities of contiguous units. **Journal of Statistical Planning and Inference** 72, 333-345.
29. Lin, W.-C. and Stufken, J. (1998). Varietal trials in the presence of trends. **Journal of Combinatorics, Information and System Sciences** 23, 295-316. (Felicitation volume dedicated to Professor J.N. Srivastava.)
30. Hedayat, A.S. and Stufken, J. (1999). Compound orthogonal arrays. **Technometrics** 41, 57-61.
31. Stufken, J., Song, S.Y., See, K. and Driessel, K.R. (1999). Polygonal designs: Some existence and non-existence results. **Journal of Statistical Planning and Inference** 77, 155-166.
32. Lin, W.-C. and Stufken, J. (1999). On finding trend-free block designs. **Journal of Statistical Planning and Inference** 78, 57-70.
33. Chai, F.-S. and Stufken, J. (1999). Trend-free block designs for higher order trends. **Utilitas Mathematica** 56, 65-78.
34. See, K., Stufken, J., Song, S.Y. and Bailer, A.J. (2000). Relative efficiencies of sampling plans for selecting a small number of units from a rectangular region. **Journal of Statistical Computation and Simulation** 66, 273-294.
35. De Cock, D. and Stufken, J. (2000). On finding mixed orthogonal arrays of strength 2 with many 2-level factors. **Statistics and Probability Letters** 50, 383-388.

36. Hedayat, A.S. and Stufken, J. (2001). Compound orthogonal arrays and dispersion effects. In: **Recent Advances in Experimental Designs and Related Topics**, S. Altan and J. Singh, eds., pp. 119-132. Nova Science Publishers, Huntington, NY.
37. Stufken, J. and Wright, J.H. (2001). Polygonal designs with blocks of size $k \leq 10$. **Metrika** 54, 179-184.
38. Rains, E.M., Sloane, N.J.A. and Stufken, J. (2002). The lattice of N -run orthogonal arrays. **Journal of Statistical Planning and Inference** 102, 477-500.
39. Lin, W.-C. and Stufken, J. (2002). Strongly linear trend-free designs and 1-factors of representative graphs. **Journal of Statistical Planning and Inference** 106, 375-386.
40. Kunert, J. and Stufken, J. (2002). Optimal crossover designs in a model with self and mixed carryover effects. **Journal of the American Statistical Association** 97, 898-906.
41. Hedayat, A.S. and Stufken, J. (2003). Optimal and efficient crossover designs under different assumptions for the carryover effects. **Journal of Biopharmaceutical Statistics** 13, 519-528.
42. Hedayat, A, Stufken, J. and Yang, M. (2006). Optimal and efficient crossover designs when subject effects are random. **Journal of the American Statistical Association** 101, 1031-1038.
43. Stufken, J. and Tang, B. (2007). Complete enumeration of two-level orthogonal arrays of strength d with $d + 2$ constraints. **Annals of Statistics** 35, 793-814.
44. Bose, M. and Stufken, J. (2007). Optimal crossover designs when carryover effects are proportional to direct effects. **Journal of Statistical Planning and Inference** 137, 3291-3302.
45. Yang, M. and Stufken, J. (2008). Optimal and efficient crossover designs for comparing test treatments to a control treatment under various models. **Journal of Statistical Planning and Inference** 138, 278-285.
46. Wright, James H. and Stufken, J. (2008). New Balanced Sampling Plans Excluding Adjacent Units. **Journal of Statistical Planning and Inference** 138, 3326-3335.
47. Majumdar, D. and Stufken, J. (2008). Optimal Designs for Mixed Models in Experiments Based On Ordered Units. **Annals of Statistics** 36, 1090-1107.
48. Kunert, J. and Stufken, J. (2008). Optimal crossover designs for two treatments in the presence of mixed and self carryover effects. **Journal of the American Statistical Association** 103, 1641-1647.
49. Kao, M.-H., Mandal, A. and Stufken, J. (2008). Optimal Design for Event-related Functional Magnetic Resonance Imaging Considering Both Individual Stimulus Effects and Pairwise Contrasts. **Statistics and Applications** 6, 235-256. (Invited for special issue in honor of Aloke Dey).
50. Yang, M. and Stufken, J. (2009). Support points of locally optimal designs for nonlinear models with two parameters. **Annals of Statistics** 37, 518-541.
51. Kao, M.-H., Mandal, A., Lazar, N., and Stufken, J. (2009). Multi-objective Optimal Experimental Designs for Event-Related fMRI Studies. **NeuroImage** 44, 849-856.
52. Kao, M.-H., Mandal, A. and Stufken, J. (2009). Efficient Designs for Event-Related Functional Magnetic Resonance Imaging with Multiple Scanning Sessions. **Communication in Statistics – Theory and Methods** 38, 3170-3182. (Invited for special issue in honor of Shelley Zacks).
53. Ozan, O. and Stufken, J. (2010). Assessing the Impact of Carryover Effects on the Variances of Estimators of Treatment Differences in Crossover Designs. **Statistics in Medicine** accepted.

54. Wright, James H. and Stufken, J. (2010). Variance approximation under balanced sampling plans excluding adjacent units. **Journal of Statistical Theory and Practice** accepted.

• **Non-refereed publications**

1. Hedayat, A., and Stufken, J. (1986). Fractional factorial designs in the form of incomplete orthogonal arrays. In: **Statistical Designs: Theory and Practice** (Proceedings of a conference in honor of Walter T. Federer), Charles E. McCulloch, Steven J. Schwager, George Casella, and Shayle R. Searle, eds., pp. 101-115. Cornell University Press, Ithaca, N.Y.
2. Hedayat, A., Rao, C.R., and Stufken, J. (1988). Designs for survey sampling avoiding contiguous units. In: **Handbook of Statistics 6: Sampling**, P. R. Krishnaiah and C. R. Rao, eds., pp. 575-583. North-Holland, Amsterdam.
3. Hedayat, A., and Stufken, J. (1988). Two-symbol orthogonal arrays. In: **Optimal Design and Analysis of Experiments** (Proceedings of the First International Conference-Workshop on Optimal Design and Analysis of Experiments, Neuchâtel, Switzerland, July 25-28, 1988), Y. Dodge, V. V. Fedorov, and H. P. Wynn, eds., pp. 47-58. North-Holland, Amsterdam.
4. Hedayat, A., and Stufken, J. (1989). On the maximum number of factors in two construction methods for orthogonal arrays. In: **Statistical Data Analysis and Inference** (Proceedings of a conference in honor of C. R. Rao, Neuchâtel, Switzerland, August 21-24, 1989), Y. Dodge, ed., pp. 33-40. North-Holland, Amsterdam.
5. Stufken, J. (1990). Contribution to the discussion of "The non-orthogonal design of experiments" by R. Mead. **Journal of the Royal Statistical Society A** 153, 195.
6. Hedayat, A.S. and Stufken, J. (2002). Optimal and efficient crossover designs for a model with self and mixed carryover effects. In: ASA Proceedings of the 2001 JSM.
7. Groeneveld, R. A. and Stufken, J. (2002). Solution of "A careless walk toward zero". **The American Mathematical Monthly** 109, 855-856.
8. Stufken, J. (2005). Comment on "The Impact of Technology on the Scientific Method" by S. Keller-McNulty, A.G. Wilson, and G. Wilson. **Chance** 18 (4), 16.
9. Stufken, J. (2007). Samad Hedayat: A Friend and Mentor. In the April 21 issue of the Daily Newsletter of the Conference on Algebraic Graph Theory, IPM, Tehran, Iran, April 21-27, 2007.
10. Hedayat, S. and Stufken, J. (2009). Comment on "What is Statistics?". **The American Statistician** 63 (2), 115-116.
11. Stufken, J. (2009). An Invitation: Editor's Introduction to "Desired and Feared—what Do We Do Now and Over the Next 50 Years?". **The American Statistician** 63 (3), 201.

• **Book reviews**

1. Stufken, J. (1988). Optimal paired comparison designs for factorial experiments, by E. E. M. van Berkum. **Journal of the American Statistical Association** 83, 909.
2. Stufken, J. (1994). Taguchi Methods: A hands-on approach, by G. S. Peace. **Technometrics** 36, 121-122.
3. Stufken, J. (2000). Design and Analysis of Experiments, by Angela Dean and Daniel Voss. **Journal of the American Statistical Association** 95, 679.

• **Other manuscripts**

1. Stufken, J. and Yang, M. (2010). On locally optimal designs for generalized linear models with group effects. Submitted.

2. Han, L. and Stufken, J. (2010). Use of baseline measurements in 2×2 cross-over trials with repeated measurements (working title). In preparation.
3. Stufken, J. and Yang, M. (2010). Optimal designs for generalized linear models. Under revision as Chapter 4 of Design and Analysis of Experiments, Volume 3, Hinkelmann and Kempthorne.
4. Kao, M.-H., Mandal, A. and Stufken, J. (2010). Constrained Multi-objective Designs for Functional MRI Experiments via A Modified NSGA-II. Submitted.
5. Kao, M.-H., Majumdar, D., Mandal, A., Stufken, J. (2010). Robust Event Related fMRI designs under a nonlinear model (working title). In preparation.
6. Yang, M. and Stufken, J. (2010). Identifying locally optimal designs for nonlinear models: A simple extension with profound consequences (working title). In preparation.
7. Stufken, J. and Taylor, R.L. (2010). A Brief History of the Department of Statistics at the University of Georgia. In preparation for a book edited by Alan Agresti and Xiao-Li Meng.
8. Stufken, J. (1986). On optimal and highly efficient block designs for comparing test treatments with a control. Ph.D. dissertation, University of Illinois at Chicago.

MEMBERSHIP OF PROFESSIONAL ORGANIZATIONS

- Institute of Mathematical Statistics (Fellow)
- American Statistical Association (Fellow)
- International Statistical Institute (Elected Member)

INVITED PRESENTATIONS AT PROFESSIONAL MEETINGS AND INVITED LECTURES

- On bounds for the efficiency of block designs for comparing test treatments with a control. At the Joint Statistical Meetings, August 1986, Chicago, Illinois (an ASA session).
- Two-symbol orthogonal arrays. At the First International Conference-Workshop on Optimal Design and Analysis of Experiments, July 25-28, 1988, University of Neuchâtel, Switzerland.
- Sampling designs useful for solid waste sampling. At the Joint Statistical Meetings, August 22-25, 1988, New Orleans, Louisiana (a session of the Survey Research Section of the ASA).
- On some families of repeated measurements designs. At the Western Regional IMS Meeting, June 25-28, 1989, Davis, California.
- On the construction of orthogonal arrays. At the meeting “Design of Experiments: Optimality, Construction, and Applications”, May 2-8, 1993, Mathematisches Forschungsinstitut Oberwolfach, Germany.
- Trend-free and nearly trend-free block designs (with D. Majumdar). At the Eastern Regional IMS/ENAR Meeting, Birmingham, Alabama, March 26-29, 1995.

- Sampling designs to control selection probabilities of contiguous units (with A.S. Hedayat). At the R.C. Bose Memorial Conference, Colorado State University, Fort Collins, Colorado, June 7-11, 1995.
- On difference schemes and orthogonal arrays of strength t (with A.S. Hedayat and G. Su). At the R.C. Bose Memorial Conference, Colorado State University, Fort Collins, Colorado, June 7-11, 1995. (Presented by G. Su)
- Design of experiments in the presence of trends. At the First DeKalb Symposium on Recent Developments in Statistical Science, DeKalb, Illinois, September 27-29, 1996.
- Crossover Designs. At the 50th Anniversary Conference of the Department of Statistics, Iowa State University, Ames, Iowa, October 16-18, 1997.
- Crossover Designs. At the Longitudinal Data Analysis Workshop, Northern Illinois University, November 6-7, 1997.
- Orthogonal Arrays. Two 2-hour lectures at the University of Dortmund, Germany, November 17-21, 1997.
- Compound Orthogonal Arrays. At the meeting “Experimental Design: Theory and Applications”, Nov. 1-7, 1998, Mathematisches Forschungsinstitut Oberwolfach, Germany.
- Crossover Designs for Correlated Data (with A.S. Hedayat). At the Fifth Annual Biopharmaceutical Applied Statistics Symposium (BASS), Hilton Head Island, South Carolina, December 7-11, 1998. (Presented jointly with A.S. Hedayat)
- Compound Orthogonal Arrays (with A.S. Hedayat). At the Spring Central Section Meeting of the AMS, Urbana, IL, March 18-21, 1999. (Presented by A.S. Hedayat)
- Optimal and Efficient Crossover Designs. At the First International Workshop on Crossover Designs, Göteborg, Sweden, May 19-20, 1999.
- Compound Orthogonal Arrays (with A.S. Hedayat). At the Spring Research Conference on Statistics and Technology, Minneapolis-St.Paul, MN, June 2-4, 1999.
- Compound Orthogonal Arrays. At the Annual Meeting of the Statistical Society of Canada, Regina, Canada, June 6-9, 1999.
- Optimal Crossover Designs. At the Sixth International Conference on Statistics, Combinatorics, and Related Areas, Forum for Interdisciplinary Mathematics, Mobile, AL, December 18-20, 1999.
- Orthogonal arrays: Open problems and recent developments. At “Reflections on the Past and Visions for the Future”, an International Conference in Honor of Professor C.R. Rao, San Antonio, Texas, March 16-19, 2000.
- Discussion leader at roundtable discussion on “Orthogonal Arrays: Theory and Applications” at the First Midwest Conference for New Directions in Experimental Design, Columbus, Ohio, May 18-20, 2000.
- Compound orthogonal arrays and dispersion effects (with A.S. Hedayat). At the Second International Conference on Mathematical Methods in Reliability: Methodology, Practice and Inference. Bordeaux, France, July 4-7, 2000. (Presented by A.S. Hedayat.)
- Polygonal designs. At the IMS Western Regional Meeting (with WNAR and the Statistical Society of Canada), Vancouver, Canada, June 10-14, 2001.

- Optimal crossover designs in a model with self and mixed carryover effects (with Joachim Kunert). Model Oriented Data Analysis (MODA) 6, Austria, June 25-29, 2001 (presented by Kunert).
- NSF/DMS Statistics Program. At the Joint Statistical Meetings, Atlanta, GA, August 5-9, 2001.
- Optimal and efficient crossover designs (with A.S. Hedayat). At the Joint Statistical Meetings, Atlanta, GA, August 5-9, 2001.
- Crossover designs for two treatments. At the Fourth Biennial International Conference on Statistics, Probability and Related Areas, DeKalb, IL, June 14-16, 2002.
- Funding for research in statistics at the National Science Foundation. At the Fourth Biennial International Conference on Statistics, Probability and Related Areas, DeKalb, IL, June 14-16, 2002.
- Block designs in the presence of trends (with Dibyen Majumdar). At the Fourth Biennial International Conference on Statistics, Probability and Related Areas, DeKalb, IL, June 14-16, 2002 (presented by Majumdar).
- Considerations for selecting a crossover design. At the 2002 Taipei International Statistical Symposium and Bernoulli Society EAPR Conference, Taipei, Taiwan, July 7-10, 2002.
- Orthogonal arrays: Selected results. At the conference Design and Analysis of Experiments 1 (DAE1), Vancouver, Canada, July 14-18, 2002.
- Roundtable discussion leader on funding for statistics at the NSF. At the conference Design and Analysis of Experiments 1 (DAE1), Vancouver, Canada, July 14-18, 2002.
- Considerations for selecting a crossover design. At the conference Design and Analysis of Experiments 2003 (DAE 2003), Chicago, IL, May 14-17, 2003.
- On the use of Hadamard matrices in the design of experiments. Presentation for the US Mathematics Olympiad Winners during their visit to the National Science Foundation, Arlington, VA, June 23, 2003.
- Considerations for selecting a crossover design. Justus F. Seely Memorial Conference on Linear Models, Corvallis, OR, July 31-Aug. 1, 2003.
- Polygonal designs: A synopsis. International Conference on Statistics, Combinatorics and Related Areas, 10th Conference of the Forum for Interdisciplinary Mathematics, Portland, ME, October 3-5, 2003.
- Statistics: Opportunities and challenges. International Conference on Statistics, Combinatorics and Related Areas, 10th Conference of the Forum for Interdisciplinary Mathematics, Portland, ME, October 3-5, 2003.
- Factorial experiments: An introduction. Lecture for students and faculty at Bucknell University as a visitor in the Distinguished Visitor Program of the Department of Mathematics, Lewisburg, PA, March 10, 2004.
- Crossover designs: Some recent developments. Lecture at Bucknell University as a visitor in the Distinguished Visitor Program of the Department of Mathematics, Lewisburg, PA, March 11, 2004.
- Polygonal designs: An overview. Research Meeting of the Southern Regional Council on Statistics, Blacksburg, VA, June 6-9, 2004.

- Polygonal designs: An overview. Model Oriented Data Analysis and Optimal Design (mODa) 7, Heeze, The Netherlands, June 14-18, 2004.
- Optimal and efficient crossover designs when subject effects are random. ENAR, Austin, TX, March 20-23, 2005 (IMS session).
- Orthogonal arrays – with or without additional structure or properties. Workshop on Quality Improvement Methods, Witten-Bommerholz (near Dortmund), Germany, April 1-2, 2005.
- Optimal and efficient crossover designs when subject effects are random. International Conference on Design of Experiments (ICODOE), Memphis, TN, May 12-15, 2005.
- Optimal and efficient crossover designs when subject effects are random. International Conference on Statistics in Honour of Professor Kai-Tai Fang's 65th Birthday (Fang65), Hong Kong, June 20-24, 2005.
- On a class of block designs and its use in sampling. Design and Analysis of Experiments: DAE2005, Santa Fe, NM, October 11-14, 2005.
- Some Combinatorial Questions Emanating from the Design of Experiments. International Conference on Statistics, Combinatorics and Related Areas, 12th Conference of the Forum for Interdisciplinary Mathematics, Auburn, December 2-4, 2005.
- Moderator of Editors' Round Table. International Conference on Statistics, Combinatorics and Related Areas, 12th Conference of the Forum for Interdisciplinary Mathematics, Auburn, December 2-4, 2005.
- On two-treatment crossover designs. International Conference on Design of Experiments and Its Applications, Tianjin, China, July 9-13, 2006.
- Moderator of Editors' Round Table. International Conference on Interdisciplinary Mathematical & Statistical Techniques, 13th Conference of the Forum for Interdisciplinary Mathematics, Tomar, Portugal, September 1-4, 2006.
- On a class of PBIB designs useful in sampling. Sixth International Triennial Calcutta Symposium on Probability and Statistics, Special Session in the Memory of Prof. R.C. Bose, Kolkata, India, December 29-31, 2006.
- On Block Designs Useful in Sampling. International Conference on Interdisciplinary Mathematical & Statistical Techniques (IMST) 2007, 15th Conference of the Forum for Interdisciplinary Mathematics, Shanghai, China, May 20-23, 2007 (plenary presentation).
- Moderator of Editors' Round Table. International Conference on Interdisciplinary Mathematical & Statistical Techniques (IMST) 2007, 15th Conference of the Forum for Interdisciplinary Mathematics, Shanghai, China, May 20-23, 2007.
- Carry-Over Effects in Cross-Over Designs. Joint Statistical Meetings 2007 (topic contributed session), Salt Lake City, UT, June 28 - August 2, 2007.
- Maximin Universally Optimal Block Designs in the Presence of a Trend. International Conference on Advances in Interdisciplinary Statistics and Combinatorics, Greensboro, NC, October 12-14, 2007.
- Maximin Universally Optimal Block Designs in the Presence of a Trend. Design and Analysis of Experiments 2007, Memphis, TN, November 1-3, 2007.

- On determining support points of locally optimal designs for nonlinear models. International Conference on Interdisciplinary Mathematical & Statistical Techniques (IMST) 2008, 16th Conference of the Forum for Interdisciplinary Mathematics, Memphis, TN, May 15-18, 2008.
- On determining support points of locally optimal designs for nonlinear models. 15th Annual Spring Research Conference (SRC) on Statistics in Industry and Technology, Atlanta, GA, May 19-21, 2008.
- On locally optimal designs for generalized linear models with group effects. The 6th Workshop on Simulation, St. Petersburg, Russia, June 28 - July 4, 2009.
- On locally optimal designs for generalized linear models with group effects. Design and Analysis of Experiments 2009, Columbia, MO, October 14-17, 2009.
- Carry-over effects when using crossover designs. The 10th Islamic Countries Conference on Statistical Sciences, Cairo, Egypt, December 20-23, 2009.

OTHER PRESENTATIONS AT PROFESSIONAL MEETINGS

- Concepts of balance in block designs. At the Joint Statistical Meetings, August 6-10, 1989, Washington, D.C. (a topic-contributed ASA session).
- On group divisible treatment designs for comparing test treatments with a standard treatment in blocks of size 3 (with K.-J. Wang). At the International Statistical Symposium, Taipei, R.O.C., June 28-30, 1990. (Presented by K.-J. Wang)
- Comparing test treatments with a control. At the Joint Statistical Meetings, August 18-22, 1991, Atlanta, Georgia.
- Fractional factorial designs with equal information matrices (with K.-J. Wang). At the Joint Statistical Meetings, August 18-22, 1991, Atlanta, Georgia. (Presented by K.-J. Wang)
- Sampling designs useful for solid waste sampling (with A.S. Hedayat). At the 1991 Conference on Solid Waste Research and Technology, October 15-16, 1991, Oak Brook, Illinois.
- On the existence of p -trend-free block designs. At the 1997 Joint Statistical Meetings, Anaheim, California.
- Panelist for “A Forum for Communication with the National Science Foundation”, a topic contributed panel at the Joint Statistical Meetings, San Francisco, CA, August 3-7, 2003.

COLLOQUIUM SPEAKER

1. On comparing test treatments with a control

- University of California, Santa Barbara, Department of Mathematics, 1986
- Purdue University, West Lafayette, Department of Statistics, 1986
- Columbia University, New York, Department of Statistics, 1986
- University of Southern California, Los Angeles, Department of Mathematics, 1986

- University of British Columbia, Vancouver, Department of Statistics, 1986
 - University of Illinois at Urbana, Department of Statistics, 1986
 - University of Kentucky, Lexington, Department of Statistics, 1986
 - University of Georgia, Athens, Department of Statistics, 1986
 - University of South Carolina, Columbia, Department of Statistics, 1986
 - Cornell University, Ithaca, Biometrics Unit and School of Operations Research and Industrial Engineering, 1986
 - University of Iowa, Iowa City, Department of Statistics and Actuarial Science, 1986
 - Harvard University, Cambridge, Department of Statistics, 1986
 - University of Illinois at Chicago, Department of Mathematics, Statistics, and Computer Science, 1986
2. **On the construction of PPS sampling designs**
 - University of Georgia, Athens, Department of Statistics, 1987
 3. **A-optimal and highly efficient block designs for comparing test treatments with a control**
 - Iowa State University, Ames, Department of Statistics, 1988
 4. **Optimal and efficient repeated measurements designs**
 - Iowa State University, Ames, Department of Statistics, 1989
 5. **Variance balanced and pairwise balanced block designs**
 - University of Guelph, Guelph, Department of Mathematics and Statistics, 1989
 6. **On comparing test treatments with a standard treatment**
 - University of Illinois at Chicago, Department of Mathematics, Statistics, and Computer Science, 1990
 7. **Trend-free and nearly trend-free designs: Selected results**
 - Iowa State University, Ames, Department of Statistics, 1992
 8. **Orthogonal arrays: Construction and existence**
 - University of Illinois at Chicago, Department of Mathematics, Statistics, and Computer Science, 1993
 9. **Orthogonal arrays: Selected results and some open problems**
 - University of Waterloo, Waterloo, Department of Statistics and Actuarial Science, 1993
 - Tamkang University, Taipei, Taiwan, Department of Mathematics and Department of Statistics, 1996
 - Academia Sinica, Taipei, Taiwan, Institute of Statistical Science, 1997
 10. **Orthogonal arrays: Some selected problems**
 - Northern Illinois University, Division of Statistics, 1994

11. Crossover designs

- University of Dortmund, Germany, Department of Statistics, 1997
- University of Illinois at Chicago, Department of Mathematics, Statistics, and Computer Science, 1998

12. Orthogonal arrays and compound orthogonal arrays

- Virginia Tech, Department of Statistics, 1998

13. Studying dispersion effects through designed experiments

- University of Illinois at Chicago, Department of Mathematics, Statistics, and Computer Science, 1999

14. Some recent developments on crossover designs

- George Mason University, Computational Statistics, 2002
- University of Georgia, Department of Statistics, 2002
- Iowa State University, Department of Statistics, 2002
- Columbia University, Department of Biostatistics, 2002
- Michigan State University, Department of Statistics and Probability, 2003

15. Funding for research in statistics at the NSF

- North Carolina State University, Department of Statistics, 2002
- Michigan State University, Department of Statistics and Probability, 2003

16. Combinatorial structures in design of experiments

- Clemson University, Department of Mathematical Sciences, 2004

17. Two-treatment crossover designs

- Georgia Institute of Technology, School of Industrial and Systems Engineering, 2006

18. On Block Designs Useful in Sampling

- University of Central Florida, Department of Statistics and Actuarial Science, 2007
- East China Normal University, Department of Statistics, 2007

19. Writing and Publishing

- University of Georgia, Department of Statistics, Graduate Student Seminar, 2007
- Zhejiang University, School of Management, Hangzhou, China, 2007
- University of Georgia, Department of Statistics, Graduate Student Seminar, 2009

20. Maximin Universally Optimal Block Designs in the Presence of a Trend

- University of South Alabama, Department of Mathematics and Statistics, 2008

21. Carryover Effects in Crossover Designs

- University of Pennsylvania, Department of Biostatistics and Epidemiology, 2008
- University of Missouri-Columbia, Department of Statistics, 2008

22. Carryover Effects when Using Crossover Designs

- Simon Fraser University, Department of Statistics & Actuarial Science, 2010

SERVICES

1. Editor, **The American Statistician**, January 1, 2009 - present (Editor-Elect July 1 - December 31, 2008)
2. Executive Editor, **Journal of Statistical Planning and Inference**, January 2004 - December 2006. (Handled 387 submissions in 2004, 453 in 2005, and 493 in 2006.)
3. Associate Editor, **Statistical Methodology**, 2007 - 2010.
4. Associate Editor, **Journal of Statistical Theory and Practice**, 2006 - present
5. Associate Editor, **Journal of the American Statistical Association**, 2003 - 2005, 2011 - .
6. Associate Editor, **Journal of Statistical Planning and Inference**, 1995 - 2003.
7. Associate Editor, **Communications in Statistics - Theory and Methods**, 1993 - 2001.
8. Served on proposal review panels for the **National Science Foundation**, Arlington, VA, 2000, 2007
9. Served on **ASA Task Force** on Graduate Research and Education, 2004
10. Served on **ASA Task Force** on Science Policy, 2006, 2007
11. Organized an invited paper session at the **1995 Eastern Regional IMS/ENAR Meeting**, Birmingham, Alabama (with D. Majumdar).
12. Organized and chaired an invited paper session in memory of Oscar Kempthorne at the **2002 Joint Statistical Meetings**, New York, NY.
13. UGA representative to the **Southern Regional Council on Statistics (SRCOS)**. Attended Business Meetings in 2004 (Richmond, VA), 2005 (Dallas, TX), 2006 (Lexington, KY), 2008 (Columbia, SC), 2009 (Columbia, MO).
14. Served as judge of a student paper session at the **2004 International Indian Statistical Association meeting**, Athens, GA.
15. Organized an invited paper session at the **2004 Summer Research Conference of the Southern Regional Council of Statistics**, Blacksburg, VA.
16. Organized and chaired an invited paper session at the **2004 Joint Statistical Meetings**, Toronto, Canada.
17. Organized and chaired the Business Meeting of the Academic Program Representatives group, **2006 Joint Statistical Meetings**, Seattle, WA.
18. Organized and chaired an invited paper session at the Sixth Workshop on Simulation, June 28 - July 4, 2009, Saint Petersburg, Russia.
19. Organized and moderated an invited panel discussion for *The American Statistician* at the Joint Statistical Meetings, August 1-6, 2009, Washington DC.
20. Organized and chaired an invited paper session at Design and Analysis of Experiments 2009, October 14-17, 2009, Columbia, MO.
21. Organized and will moderate an invited panel discussion for *The American Statistician* at the Joint Statistical Meetings, July 31 - August 5, Vancouver, BC, Canada.

22. Served as Chair of **AR/ASA Committee** for studying the possibility of bringing the Academic Program Representatives group under the ASA umbrella.
23. Served as ex-officio member of the **SPAIG Award Committee**, 2006.
24. Served on the **Conference Advisory Board** for the Com2MaC 2004 Conference on Association Schemes, Codes, and Designs, July 19-23, 2004, Pohang, South Korea.
25. Served on the **International Advisory Committee** for the International Conference on Design of Experiments: Theory and Applications, May 13-15, 2005, Memphis, TN.
26. Served on the **International Advisory Committee** for the 13th Conference of the Forum for Interdisciplinary Mathematics, September 1-4, 2006, Tomar, Portugal.
27. Served on the **International Advisory Steering Committee**, ISAS Golden Jubilee Conference, Dec 27-30, 2006, Delhi, India.
28. Served as co-organizer and co-moderator of the First Statistics Chairs' Workshop, July 27-28, 2007, Salt Lake City, UT.
29. Served as Chair of the Program Committee for Design and Analysis of Experiments 2007, November 1-3, 2007, Memphis, TN.
30. Serve on the Advisory Committee for the International Conference on Design of Experiments, May 10-13, 2011, Memphis, TN.
31. Serve on the Scientific Advisory Committee for Design and Analysis of Experiments (DAE), Isaac Newton Institute for Mathematical Sciences (INI), Cambridge, UK. This is for a half year program from July 18 - December 21, 2011.
32. Refereed papers for the following 31 professional outlets:
 - **The American Statistician**(6)
 - **Annals of Statistics**(16)
 - **Biometrical Journal**(1)
 - **Biometrics**(2)
 - **Biometrika**(8)
 - **Calcutta Statistical Association Bulletin**(1)
 - **Communications in Statistics**(11)
 - **Computational Statistics**(1)
 - **Discrete Applied Mathematics**(1)
 - **Discrete Mathematics**(1)
 - **Forest Science**(1)
 - **Genetics Selection Evolution**(1)
 - **Handbook of Statistics**(1)
 - **Journal of Combinatorial Design**(1)
 - **Journal of Combinatorics, Information and System Sciences** (1)
 - **Journal of Computational and Graphical Statistics**(1)

- **Journal of King Saud University (Science)**(1)
 - **Journal of Statistical Planning and Inference**(21)
 - **Journal of the American Statistical Association**(6)
 - **Journal of the Indian Society of Agricultural Statistics**(1)
 - **Journal of the Royal Statistical Society**(2)
 - **Mathematical Methods of Statistics**(1)
 - **Metrika**(5)
 - **Proceedings of the Conference on New Developments and Applications in Experimental Design**(1)
 - **Proceedings of the IPM-20 Combinatorics Conference**(1)
 - **Proceeding of Meeting of the Saudi Association of Mathematical Sciences**(1)
 - **Sankhyā**(3)
 - **Statistica Sinica**(8)
 - **Statistics and Probability Letters**(9)
 - **Technometrics**(5)
 - **Utilitas Mathematica**(1)
33. Reviewed 3 books, for the following 2 journals:
- **Journal of the American Statistical Association**(2)
 - **Technometrics**(1).
34. Reviewed book manuscripts for **John Wiley and Sons**(1), **Springer Verlag**(2), and **Chapman & Hall/CRC**(2)
35. Served as Program Director for Statistics in the Statistics and Probability Program in the Division of Mathematical Sciences at the National Science Foundation, Aug 2000-Aug 2003.
36. Served on numerous management committees at the National Science Foundation, including for Biocomplexity in the Environment, Collaboration in the Mathematical and Geological Sciences, DMS/NIGMS Competition in Mathematical Biology, Focused Research Groups in the Mathematical Sciences, Information Technology Research, and Vertical Integration of Research and Education in the Mathematical Sciences.
37. Served on 6 NSF VIGRE site visit teams. Observed 1 site visit for the Mathematical Sciences Institutes competition.
38. Excluding my period at the NSF and panel service, reviewed research proposals for the following agencies:
- **National Science Foundation** (18)
 - **Natural Sciences and Engineering Research Council of Canada** (6)
 - **National Research Council** (4)
 - **North Carolina Board of Science and Technology** (1)
 - **Ohio Super Computing Center** (2)
 - **Swedish Research Council for Engineering Sciences** (1)

- **Australian Research Council** (1)
 - **Technology Foundation STW** (1)
 - **FWO Belgium** (2)
39. Served as external reviewer for 32 promotion candidates (19 to associate professor; 13 to full professor level).
40. Served on external team for review of Department of Mathematics and Statistics, University of Maryland Baltimore County, 2007.
41. Service on departmental, college and university committees:
- (a) At the University of Georgia (86-88): Library Committee, Committee on Equivalency Exam, Department Brochure/Handbook Committee.
 - (b) At Iowa State University (88-00): Advisory Committee on Promotion and Tenure, Examination Committee for Nonthesis M.S. Exam (3, once as chair), Ph.D. Prelim Examination Committee (7, twice as chair), Assistantship Evaluation Committee (2, once as chair), Search Committee for Position in Discrete Mathematics (Mathematics Department), Search Committee for Position in Statistics (5, including as chair for the Laurence H. Baker endowed professorship), Seminar Committee (2, once as chair), Graduate Committee (every year since 1990), Graduate Research Committee (contributing to writing of departmental strategic plan), Curriculum Committee (4), Ad Hoc Committee on Revising Departmental Documents, Focus Groups as part of Departmental Graduate Curriculum Review (2, chairing one of the groups), Faculty Development Committee (LAS College, 92-95).
 - (c) At the University of Georgia (03-present): Executive Committee for Preparing Departmental Self Study (chair), Search Committee (chair), Foundation Accounts (2), Presidential Graduate Fellows Awards Committee (Graduate School), Research Computing Advisory Committee (OVPR, 2007-2010), Staff Awards Selection Committee (Franklin College), Advisory Committee to the Dean for Hiring a new Associate Dean for Research and Graduate Education (Franklin College)

GRADUATE STUDENTS

- M.S. Students: Jia-Chyi Chiu (1990), Tae-Kyoung Cho (1990), Bryan Olin (1991), Mahmood Ahmad (1992), Jihwan Cho (1992), Sang-Heon Oh (1993).
- Ph.D. Students: Kui-Jang Wang (1992), Bryan Olin (1993), Win-Chin Lin (1998), James Wright (2002), Shiaau-Er Huang (current), Lingling Han (2007), Ming-Hung (Jason) Kao (2009), Ozgu Issever (current), Hsin-Ping Wu (current).
- Served in addition as committee member for 28 M.S. students and 35 Ph.D. students.

TEACHING EXPERIENCE

- (a) Taught the following courses at the University of Georgia since 2003:
 - Stat 4/6240, Sampling and Survey Methods, 2007

- Stat 4/6230, Applied Regression Analysis, 2004, 2008
- Stat 8200, Design of Experiments for Research Workers, 2003, 2004, 2005, 2009 (twice)
- Stat 8290, Advances in Experimental Designs, 2006

(b) Taught the following courses at Iowa State University:

- STAT 104, Introduction to Statistics, 1993
- STAT 201, Applied Regression Analysis for Business, 2000
- STAT 402, Design and Analysis of Experiments, 1990, 1991, 1992, 1993, 1994
- STAT 511, Linear Models, 1992, 1996, 1997, 1998
- STAT 512, Design of Experiments, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999
- STAT 513, Response Surface Methodology, 1989, 1991
- STAT 612, Advanced Topics in Design of Experiments, 1990, 1995, 1999

STAT 104 is an introductory statistics course for undergraduate students in agricultural and biological sciences. STAT 201 is a second statistics course for business students. STAT 402 has a mix of undergraduate students (some majoring in statistics) and graduate students (non-majors only). STAT 511, STAT 512 and STAT 513 are taken by graduate students only, most of whom major in statistics. STAT 612 is a Ph.D. level experimental design course.

Taught two sections of STAT 511 in 1996, one of which was video taped for students at General Motors. In 1998 STAT 511 & STAT 512 were video taped for students at General Motors and at the Mayo Clinic; STAT 512 was also video taped in 1999. Received twice a letter of commendation from General Motors for “superior teaching performance”, once for Stat 511 (1998) and once for Stat 512 (1998).

(c) Taught undergraduate courses and graduate/undergraduate courses in mathematics and statistics at the University of Illinois at Chicago and at the University of Georgia. Also taught the following graduate courses at these universities.

- STAT 820, University of Georgia, Design of Experiments, 1986
- MATH 446, University of Illinois at Chicago, Optimal Design of Experiments, 1987
- STAT 536, University of Illinois at Chicago, Optimal Design of Experiments, part 2, 1994

FUNDED PROPOSALS

- Faculty Research Grant, University of Georgia, 1989. (Declined award because I went on leave).
- Summer Salary Support Grant, Iowa State University, 1989.
- Summer Salary Support Grant, Iowa State University, 1991.
- DEC Workstation, Project Vincent competition, Iowa State University, 1992.
- Foreign Travel Grant, Iowa State University, 1993, for an invited talk at the Mathematisches Forschungsinstitut Oberwolfach, Germany.

- NSF Research Grant, PI, 1995-1998.
- Foreign Travel Grant, Iowa State University, 1996, for an invited visit to the Institute of Statistical Science, Academia Sinica, Taipei, Taiwan. (Visit of 3 weeks during Dec. 96/Jan. 97.)
- Foreign Travel Grant, Iowa State University, 1998, for an invited talk at the Mathematisches Forschungsinstitut Oberwolfach, Germany.
- NSF Research Grant, PI, 1998-2001.
- Foreign Travel Support, University of Georgia, 2004, for an invited talk at mODa 7, Heeze, The Netherlands.
- Foreign Travel Support, University of Georgia, 2005, for an invited talk at Fang65, Hong Kong.
- Foreign Travel Support, University of Georgia, 2006, for an invited talk at the International Conference on Design of Experiments and Its Applications, Tianjin, China.
- Foreign Travel Support, University of Georgia, 2006, for an invitation to the 13th Conference of the Forum for Interdisciplinary Mathematics, Tomar, Portugal.
- NSF Research Grant, PI, 2007-2010.
- Foreign Travel Support, University of Georgia, 2009, for an invited talk at the Sixth St. Petersburg Workshop on Simulation, St. Petersburg, Russia.
- NSF Research Grant, PI, 2010-2013.

OTHER ITEMS

- Have been involved continuously in activities to assist faculty and students on campus with problems in design of experiments and linear models. This includes faculty and students in statistics as well as from various other disciplines.