

## CURRICULUM VITAE

**Name:** Angela Muriel Dean

**Nationality:** British (U.S. resident alien)

### Qualifications:

B.Sc.	1971	Honours Mathematics	Southampton University
Ph.D.	1975	Statistics	Southampton University

### Employment:

From July 2011	The Ohio State University The Ohio State University	Professor Emeritus, Member of Emeritus Academy
From November 2003	Southampton Stat. Sci. Res. Institute	Associate Member
October 2011-2014	University of Southampton, UK	Visiting Professor of Statistics
1992-2011	The Ohio State University	Professor
Jan-Mar 2002	University of Southampton	Visiting Research Fellow
1997 Jan-June	University of Southampton	Professor
1992-1994	The Ohio State University	Vice-Chair
1984-1992	The Ohio State University	Associate Professor
1991-1992	University of Wisconsin	Visiting Associate Professor
Summer 1990	University of Southampton	Visiting Research Fellow
1989	University of Southampton	Visiting Research Fellow
1980-1984	The Ohio State University	Assistant Professor
Summer '81,'87	University of Southampton	Visiting Research Fellow
Summer '79, '80	University of California at Berkeley	Visiting Assistant Professor
1978-1979	University of Texas at Austin	Instructor
1975-1980	The Open University, England	Lecturer in Statistics
1974-1975	Audits of Great Britain Ltd.	Statistician

### Honors

Elected Member of The Ohio State University Emeritus Academy, 2014  
Elected Fellow of the Institute of Mathematical Statistics, 2002  
Elected Fellow of the American Statistical Association, 1995  
Elected Member of International Statistical Institute, 1993  
Jean and Thomas Powers Teaching Award, OSU, 2001, 2004  
Hatcher Memorial Award for Excellence, OSU, 2004

**Research grants:**

- 6/82-9/82 Science and Engineering Research Council (UK) GR/C/16515.  
Visiting Research Fellowship
- 1/86-3/86 Ohio State University Small Grant, 221733
- 3/86 NATO Collaborative Research Grant, RG 86/0090 (with S.M. Lewis).
- 1/87 NATO Collaborative Research Grant Renewal, RG 86/0090
- 1/89-8/89 Science and Engineering Research Council (U.K.), GR/E/89759  
Visiting Research Fellowship
- 7/90 Southampton University Visiting Fellowship
- 7/91 Science and Engineering Research Council (U.K.), GR/G 36579  
Visiting Research Fellowship
- 1/97-7/97 Science and Engineering Research Council (U.K.), GR/L33528  
Visiting Research Fellowship
- 1/00-5/00 NSF (Principal Investigator) DMS-9981741  
First Midwest Conference for New Directions in Experimental Design
- 1/02-7/02 Engineering and Physical Sciences Research Council (U.K.), GR/R72693/01  
Visiting Research Fellowship
- 2003 NSF (Co-PI) DMS-0234048.(DAE2003)  
Conference on New Directions in Experimental Design
- 8/04. OSU College of Mathematical and Physical Sciences. Seed grant  
(Statistics in Marketing).
- 2004-2008 NSF (Principal Investigator) SES-0437251.  
Hierarchical Bayesian Methods in Psychology of Consumer Behavior.
- 2008-2011 NSF (Co-PI) DMS-0806134 (with T.J. Santner)  
Topics in Computer Experiments
- 2013-2016 NSF (Co-PI) DMS-1310294 (with T.J. Santner and C. Hans)  
Complex Experiments and High-Input Simulators: Challenges in Design,  
Prediction and Sensitivity.

**PUBLICATIONS**

**Books:**

1. Dean, A. M., Voss, D.T., and Draguljić, D. (2017), *Design and Analysis of Experiments* (Second Edition), Springer-Verlag.
2. Dean, A. M., Morris, M.D., Stufken, J., and Bingham, D., editors, (2015). *Handbook of Design and Analysis of Experiments*, Chapman & Hall/CRC Handbooks of Modern Statistical Methods.

3. Dean, A. M. and Lewis, S. M., editors, (2006). *Screening: Methods for Industrial Experimentation, Drug Discovery and Genetics*, Springer Verlag.
4. Dean, A. M. and Voss, D.T. (1999). *Design and Analysis of Experiments*, Springer-Verlag.
5. Introduction to Mathematical Statistics (1977), Open University Press.  
 Chapter 5, Distributions of Functions of Random Variables.  
 Chapter 16, Experimental Design.  
 Study Manual, Mathematical Methods (joint author).

### **Educational Television and Radio:**

Television programmes (Open University/B.B.C., Shown 1977 - 1985)

TV2 - Constructing a Bivariate Distribution

TV3 - Functions of Random Variables

TV8 - Experimental Design

Radio programme (B.B.C., 1977 - 1985)

R4 - Functions of a Random Sample

### **Papers:**

1. John, J. A. and Dean, A. M. (1975). Single replicate factorial experiments in generalized cyclic designs, I symmetrical arrangements. *J. Royal Statist. Soc.*, B, 37, 1, 63-71.
2. Dean, A. M. and John, J. A. (1975). Single replicate factorial experiments in generalized cyclic designs, II. asymmetrical arrangements. *J. Royal Statist. Soc.*, B, 37, 1, 72-76.
3. Dean, A. M. (1978). The analysis of partly confounded interactions in single replicate generalized cyclic designs. *J. Royal Statist. Soc.*, B, 40, 1, 79-84.
4. Dean, A. M. and Lewis, S. M. (1980). A unified theory for generalized cyclic designs. *J. Statist. Planning and Inference*, 4, 13-23.
5. Lewis, S. M. and Dean, A. M. (1980). Factorial experiments in resolvable generalized cyclic designs. *B.I.A.S.* 7, 2, 159-167.
6. Dean, A. M. and Lewis, S. M. (1983). Upper bounds for average efficiency factors of two-factor interactions. *J. Royal Statist. Soc.*, B, 45, 2, 252-257.
7. Lewis, S. M., Dean, A. M. and Lewis, P. H. (1983). Single replicate designs for two-factor experiments. *J. Royal Statist. Soc.* B, 45, 2, 224-227.
8. Dean, A. M. and Lewis, S. M. (1984). A comparison of upper bounds for efficiency factors of block designs. *J. Royal Statist. Soc.*, B, 46, 279-283.
9. Lewis, S. M. and Dean, A. M. (1984). Upper bounds for factorial efficiency factors. *J. Royal Statist. Soc.*, B, 46, 273-278.
10. Belloto, R.J., Dean, A.M., Moustafa, M.A., Molokhia, A.M., Gouda, M.W., and Sokoloski, T.D., (1985). Statistical techniques applied to solubility predictions and pharmaceutical formulations; an approach to problem solving using mixture response surface methodology. *Int. J. of Pharmaceutics*, 23, 195-207.
11. Lewis, S. M. and Dean, A. M. (1985). A note on efficiency-consistent designs. *J. Royal Statist. Soc.*, B, 47, 261- 262.

12. Chauhan, C. and Dean, A. M. (1986). Orthogonality of factorial effects. *Annals of Statistics*, 14, 743-752.
13. Dean, A. M. and Lewis, S. M. (1986). A note on the connectivity of generalized cyclic designs. *Communications in Statist.*, 15(11), 3429-3433.
14. Mukerjee, R. and Dean, A. M., (1986). On the equivalence of efficiency - consistency and orthogonal factorial structure. *Utilitas Mathematica*, 30, 145-151.
15. Voss, D.T. and Dean, A. M. (1987). A comparison of classes of single replicate factorial designs. *Annals of Statistics*, 15, 376-384.
16. Dean, A. M. (1987). An algorithm for combining component designs into a multi-dimensional design. AS 224 *Applied Statistics*, 36, 228-234.
17. Voss, D. T. and Dean, A. M. (1988). On confounding in single replicate factorial experiments. *Utilitas Mathematica*, 33, 59-64.
18. Dean, A. M. and Lewis, S. M. (1988). Towards a general theory for the construction of multi-dimensional block designs. *Utilitas Mathematica*, 34, 33-34.
19. Mukerjee, R. and Dean, A. M. (1988). Efficiency-consistency in non-equireplicate designs. *Utilitas Mathematica*, 34, 105-112.
20. Dean, A. M. and Verducci, J. S. (1989). Linear transformations that preserve majorization, Schur-concavity and exchangeability. *J. Lin. Alg. and Its Appl.*, 127, 121-138.
21. Dean, A. M. (1990). Designing factorial experiments, —a survey of the use of generalized cyclic designs. In *Design of Experiments with Appl. to Eng. and Phys. Sci.* 479-515. Editor S. Ghosh, Marcel Dekker.
22. Dean, A. M., and Wolfe, D. A. (1990). A note on exchangeability of random variables. *Statistica Neerlandica*, 44, 23-27.
23. Park, D. K. and Dean, A. M. (1990). Average efficiency factors in multi-dimensional designs. *J. Royal Statist. Soc.*, B, 52, 361-368 .
24. Wolfe, D. A., Dean, A. M. and Hartlaub, B. A. (1990). Nonparametric rank-based test procedures for non-additive models in the two-way layout. I. No replications. *Commun. Statist.* , 19, 4355-4382.
25. Lin, M. and Dean, A. M. (1991). Trend-free block designs for varietal and factorial experiments. *Annals of Statistics*, 19, 1582-1596.
26. Lewis, S. M. and Dean, A. M. (1991). On general balance in row-column designs. *Biometrika*, 78,595-600.
27. Wolfe, D. A., Dean, A. M., Wiers, M. D. and Hartlaub, B. A. (1992). Nonparametric rank based main effects test procedures for the two-way layout in the presence of interaction. *Journal of Nonparametric Statistics*, 1, 241-252.
28. Dean, A. M., Lewis, S. M. (1992). Multi-dimensional designs for two-factor experiments. *Journal of the American Statistical Association*, 87, 1158-1165.
29. Dean, A. M., Lewis, S. M., Prescott, P. and Draper, N. R. (1992). Use of a symbolic computer system to investigate the properties of mixture designs in orthogonal blocks. *Computational Statistics*, Vol.2, Proceedings of the 10th Symposium of Computational Statistics, (Eds. Y. Dodge and J. Whittaker), Physica-Verlag, Heidelberg.
30. Park, D. K. and Dean, A. M. (1992) Methods of construction of structurally incomplete row-column designs. *Communications in Statistics, Theory and Methods*, 21, (12) 3545-3560.

31. Prescott, P., Draper, N. R., Dean, A. M. and Lewis, S. M. (1993). Mixture designs for five components in orthogonal blocks. *Journal of Applied Statistics*, 20, 105-117.
32. Draper, N. R., Prescott, P., Lewis, S. M., Dean, A. M., John, P. W. M., and Tuck, M. G. (1993). Mixture designs for four components in orthogonal blocks. *Technometrics*, 35, 268-276.
33. Mukerjee, R. and Dean, A. M. (1993). Construction of regular, single-replicate, two-factor designs. *Journal of Statistical Planning and Inference*, 38, 89-104.
34. Lewis, S. M., Dean, A. M., Prescott, P. and Draper, N. R. (1994). Mixture designs for q components in orthogonal blocks. *Journal of the Royal Statistical Society* 56, 457-468.
35. Kao, L.-J., Yates, P., Lewis, S. M. and Dean, A. M. (1995). Theoretical optimal designs for estimating given sets of contrasts. *Statistica Sinica*, 5, 593-598.
36. Russell, K. G., Bost, J. E., Lewis, S. M. and Dean, A. M. (1996). The robustness of cross-over designs. *Computational Statistics*, Vol., Proceedings of the th Symposium of Computational Statistics, (Eds. ), Physica-Verlag, Heidelberg.
37. Dean, A. M. and Wolfe, D. A. (1997). Nonparametric analysis of experiments. *Handbook of Statistics*, Volume 13, Design and Analysis of Experiments, (eds: Ghosh, S. and Rao, C. R.), chapter 20.
38. Prescott, P., Draper, N. R., Lewis, S. M. and Dean, A. M. (1997). Further properties of mixture designs for five components in orthogonal blocks. *Journal of Applied Statistics*, 24, 147-156.
39. Kao, L.-J., Notz, W. I. and Dean, A. M. (1997). Efficient block designs for estimating conditional main effects contrasts. *J. Indian Soc. Agric. Stat.*, Special Golden Jubilee Issue, 49, 249-258.
40. Das, A., Dey, A. and Dean, A. M. (1998). Optimal block designs for diallel cross experiments. *Statistics and Probability Letters*, 36, 427-436
41. Das, A., Dean, A. M. and Notz, W. I. (1998). Designs with nearly minimal number of observations and flexible blocking. *J. Statist. Plann. Inf.*, 72, 133-148.
42. Russell, K. G. and Dean, A. M. (1998). Factorial cross-over designs with few subjects. *Journal of Combinatorics, Information and System Sciences*, 23, 209-236.
43. Das, A., Dean, A. M. and Gupta, S. (1998). On optimality of some partial diallel cross designs. *Sankhya, Series B*, 60, 511-524.
44. Dean, A. M. and Draper, N. R. (1999) Saturated main-effect designs for factorial experiments. *Statistics and Computing*, 9, 179-185.
45. Dean, A. M., Lewis, S. M. and Chang, J. N. (1999). Changeover experiments with nested blocking constraints. *Journal of Statistical Planning and Inference*, 77, 337-351.
46. Hartlaub, B. A., Wolfe, D. A., and Dean, A. M. (1999) Nonparametric rank-based test procedures for non-additive models in a rectangular two-way layout. *Canadian Journal of Statistics*, 27, 863-874.
47. Bortnick, S. M., Dean, A. M. and Hsu, J. C., (2001). Block designs for comparison of two test treatments with a control. In *Optimum Design 2000*, (Atkinson et al., eds.), 167-180. Dordrecht: Kluwer.
48. Dean, A. M. (2001). Experimental design: an overview. *International Encyclopaedia of Social and Behavioral Sciences, Methods of Data Collection and Quality Control*, 5090-5096, Elsevier.

49. Clark, J. B. and Dean, A. M. (2001). Equivalence of fractional factorial designs. *Statistica Sinica*, 11, 537-547.
50. Lewis, S. M. and Dean, A. M. (2001). Detection of interactions in experiments on large numbers of factors. *Journal of the Royal Statistical Society, B*, 63, 633-672, (with discussion). *Selected as a read paper for the Research Section of the Royal Statistical Society.*
51. Lehman, J. S., Wolfe, D. A., Dean, A. M. and Hartlaub, B. A., (2001) Rank-based procedures for analysis of factorial effects. In *Recent Developments in Design of Experiments and Related Topics*, eds. S. Altan and J. Singh, 35-64, Nova Science Publications.
52. Isaac, P. D., Dean, A. M. and Ostrom, T. (2001). Generating pairwise balanced Latin Squares. *Journal of Statistics and Applications*, 3, 25-46. (Invited paper).
53. Dean, A. M. and Lewis, S. M. (2002). Comparison of group screening strategies for factorial experiments. *Computational Statistics and Data Analysis*. 39, 287-297.
54. Prescott, P., Dean, A. M., Draper, N. R. and Lewis, S. M. (2002). Mixture experiments: ill-conditioning and model formulation. *Technometrics*, 44, 260-268.
55. Dean, A. M., Notz, W. I. and Kao, L.-J. (2002). A bound for efficiency in multiple response designs. *J.Statist. Plann. Inf.*, 106, 235-244..
56. Ankenman, B. E. and Dean, A. M. (2003). Quality Improvement and Robustness via Design of Experiments. In *Handbook of Statistics*, Vol. 22, 263-317. (Eds. C. R. Rao and R. Khattree). Elsevier, Amsterdam. (Invited paper)
57. Dean, A. M., Bortnick, S. M. and Hsu, J. C. (2003). Simultaneous comparisons of test treatments with a control in the block design setting. *Proceedings of the Graybill Conference, 2001, Linear, Non-linear and Generalized Linear Models*. 93-121, Colorado State University. (Invited paper)
58. Dupplaw, D., Brunson, D., Vine, A.J. , Please, C. P. Lewis, S. M., Dean, A. M., Keane, A. J, and Tindall, M. J. (2003). Web-based knowledge elicitation and application to planned experiments. *Proceedings of the 2003 ASME Design Engineering Technical Conference*.
59. Liu, Y.-F. and Dean, A. M. (2004). k-circulant supersaturated designs. *Technometrics*, 46, 32-43.
60. Russell, K. G., Lewis, S. M. and Dean, A. M. (2004). Fractional factorial designs for the detection of interactions between design and noise factors. *J. of Appl. Statist.*, 36, 545-552.
61. Dupplaw, D. P., Brunson, D., Vine, A. E., Please, C. P. P., Lewis, S. M., Dean, A. M., Keane, A. J. and Tindall, M. J. (2004), A web-based knowledge elicitation system (GISEL) for planning and assessing group screening experiments for product development. *Journal of Computing and Information Science in Engineering*, 4, 218-225.
62. Bortnick, S. M., Dean, A. M. and Hsu, J. C. (2005). Efficiency of block designs for simultaneous comparison of two test treatments with a control. *Journal of Statistical Planning and Inference*, 129, 109-124.
63. Evangeleras, H., Koukouvinos, C., Dean, A. M. and Dingus, C. A. (2005). Projection properties of certain three level orthogonal arrays. *Metrika*, 62, 241-257.
64. Vine, A. E., Lewis, S. M. and Dean, A. M. (2005). Two-stage group screening in the presence of noise factors and unequal probabilities of active effects. *Statistica Sinica*, 15, 871-888.
65. Bortnick, S. M., Dean, A. M. and Santner, T. J. (2006). Efficient designs for one-sided comparisons of two or three treatments with a control in a one-way layout. *Biometrika*, 93, 127-135.

66. Liu, Y., Ruan, S. and Dean, A. M. (2007). Construction and analysis of Es2 efficient super-saturated designs. *Journal of Statistical Planning and Inference*, 137, 1516-1529.
67. Katsaounis, T. I., Dingus, C. A. and Dean, A. M. (2007). On the geometric equivalence and non-equivalence of symmetric fractional factorial designs. *Journal of Statistical Theory and Practice*, 1, 101-105.
68. Liu, Q., Dean, A. M. and Allenby, G. (2007). Design for hyperparameter estimation in linear models. *J. Statistical Theory and Practice*, , 1, 311-328.
69. Katsaounis, T. I. and Dean, A. M. (2008). A survey and evaluation of methods for determination of combinatorial equivalence of factorial designs. *Journal of Statistical Planning and Inference*, 138, 245-258.
70. Majumdar, D., Dean, A. M. and Lewis, S. M. (2008). Uniformly balanced repeated measurements designs in the presence of subject dropout. *Statistica Sinica*, 18, 235-254.
71. Vine, A. E., Lewis, S. M. Dean, A. M. and Brunson, D. (2008). A critical assessment of two-stage group screening through industrial experimentation. *Technometrics*, 50, 15-25.
72. Ruan, S., MacEachern, S. N., Otter, T. and Dean, A. M. (2008). The dependent Poisson race model. *Psychometrika*, 73, 261-288.
73. Ye, K. Q., Park, D. K., Li, W. and Dean, A. M. (2008). Construction and Classification of Orthogonal Arrays with Small Runs. *Statistics and Applications*. 6, 5-15.
74. Liu, Q., Dean, A. M., Bakken, D. and Allenby, G. (2009). Efficient experimental designs for hyperparameter estimation: studying the level effect in conjoint analysis. *Quantitative Marketing and Economics*, 7, 69-93.
75. Georgiou, S., Draguljic, D. and Dean, A. M. (2009). An overview of two-level supersaturated designs with cyclic structure. *J. Statistical Theory and Practice*, 3, 489-504.
76. Ranjan, P., Bingham, D. R. and Dean, A. M. (2009) Existence and Construction of Randomization Defining Contrast Subspaces for Factorial Designs. *Annals of Statistics*, 37, 3580-3599.
77. Park, D.K., Bose, M., Notz, W. I. and Dean, A. M. (2011). Efficient crossover designs in the presence interactions between direct and carry-over effects. *J. Statistical Planning and Inference*, 141, 846-860.
78. Moon, H., Dean, A. M. and Santner, T. J. (2011). Algorithms for Generating Maximin Orthogonal and Latin Hypercube Designs. *J. Statistical Theory and Practice*, 5, 81-98.
79. Liu, Q., Dean, A. M. and Allenby G. (2012). Bayesian designs for hierarchical linear models. *Statistica Sinica*, 22, 393-417.
80. Draguljić, D., Santner, T. J. and Dean, A. M. (2012). Non-collapsing Space-filling Designs for Bounded Non-rectangular Regions. *Technometrics*, 54, 169-178.
81. Moon, H., Santner, T. J. and Dean, A. M. (2012). Two-stage Sensitivity-based Group Screening in Computer Experiments. *Technometrics*, 54, 376-387.
82. Dingus, C. A., Ankenman, B. E., Dean, A. M. and Sun, F. (2013). Tests for dispersion in replicated fractional factorial experiments. *J. Statistical Theory and Practice*, 7, 1-16.
83. Villarreal-Marroqui, M. G., Svenson, J. D., Sun, F., Santner, T. J., Dean, A. M. and Castro, J. M. (2013). A comparison of two metamodel-based methodologies for multiple criteria simulation optimization using an injection molding case study. *J. Polymer Engineering*, 33, 193-209.

84. Katsaounis, T. I., Dean, A. M., and Jones, B. (2013). On equivalence of fractional factorial designs based on singular value decomposition. *J. Statistical Planning and Inference*, 143, 1950-1953.
85. Sun, F., Santner, T. J. and Dean A. M. (2013). One-at-a-Time Designs for Estimating Elementary Effects of Simulator Experiments with Non-rectangular Input Regions. *Statistics and Applications*, 11, 15-32.
86. Draguljic, D., Woods, D., Dean, A. M., Lewis, S. M. and Vine, A. J. (2014). Screening Strategies in the Presence of Interactions. *Technometrics*, 56, 1-16, With Discussion. (*Awarded the Jack Youden Prize for Best Expository Paper appearing in the 2014 issues of Technometrics.*)
87. Morgan, J. P., Ghosh, S., and Dean, A. M. (2014) J. N. Srivastava and Experimental Design. *Journal of Statistical Planning and Inference*, 144, 3-18.
88. Svenson, J., Santner, T. J. Dean, A. M., and Moon, H. (2014). Estimating Sensitivity Indices from Computer Simulator Output. *J. Statistical Planning and Inference*, 144, 160-172.
89. Leatherman, E. R., Dean, A. M. and Santner, T. J. (2014). Computer Experiment Designs via Particle Swarm Optimization. In *Topics in Statistical Simulation, 7th International Workshop on Statistical Simulation*. Eds: Melas, V., Mignani, S., Monari, P., Salmaso, L. Chapter 30, pages 309-318. Springer, NY.
90. Dean, A. M. and Mee, R. (2015). Regular fractional factorial designs. In *Handbook of Design and Analysis of Experiments*. Editors: Dean, A., Morris, M., Stufken, J., Bingham, D. Chapman & Hall/CRC Handbooks of Modern Statistical Methods, 279-320.
91. Nekkanty, S., Draguljic, D., Santner, T. J. and Dean, A. M. (2015), Optimizing Thin Film Tool Coatings using a Finite Element Computer Simulator. *Quality Engineering*, 27, 461-472.
92. Sun, F. and Dean, A. M. (2016). A-optimal and A-efficient Designs for Discrete Choice Experiments. *J. Statistical Planning and Inference*, 170, 144-157.
93. Villarreal-Marroquin, M. G., Mulyana, M., Chen, A., Santner, T. J., Dean, A. M. and Castro, J. M. (2016). Multiobjective optimization of Injection Molding processes using a surrogate model with physical and simulated data. *Polymer Engineering & Science*, 57(3), 248257.
94. Leatherman, E. R., Santner, T. J., and Dean, A. M. (2017) Designs for calibration in computer experiments. *Computational Statistics and Data Analysis*, 113, 346-362.
95. Sun, F. and Dean, A. M. (2017). A-Efficient Discrete Choice Designs for Attributes with Unequal Numbers of Levels. *Journal of Statistical Theory and Practice*, 11, 322-338.
96. Chen, P. H. A, Santner, T. J. and Dean A. M. (2018). Sequential Pareto Minimization of Physical Systems Using Calibrated Computer Simulators. *Statistica Sinica*, 28, 671-692.
97. Harari, O., Bingham, D., Dean, A. M., and Higdon, D. (2018) Computer Experiments: Prediction Accuracy, Sample Size and Model Complexity Revisited. *Statistica Sinica*, 28, 899-919.
98. Leatherman, E. R., Dean, A. M. and Santner, T. J. Designs for Computer Experiments that Minimize the Weighted Integrated Mean Square Prediction Error. *Statistics and Computing*, 28, 739-751.
99. Chen, P.-H. A., Villarreal-Marroquin, M. G., Dean, A. M., Santner, T. J., Mulyana, M. and Castro, J. M. (2018). Sequential Design of an Injection Molding Process Using a Calibrated Predictor. *Journal of Quality Technology*, 50, 309-326.



**In Revision, Submitted and in Preparation:**

- 100 Singh, R., Das, A., Sun, F. and Dean, A. M., A-optimal designs under a linearized model for discrete choice experiments. *In preparation.*
101. Moore, L., Wendelberger, J. and Dean, A. M. Linear trend-free designs. *In preparation.*

**Advisor for Ph.D. Students:**

1. Chand Chauhan. 1983. Orthogonal factorial structure in incomplete block designs.
2. Daniel Voss. 1983. Confounding in single replicate factorial designs.
3. Meily Lin. 1988 Construction of designs in the presence of polynomial trends.
4. Dong-Kwon Park. 1989 Construction and efficiencies of multidimensional designs.  
*PhD dissertation won "Korean Stat. Assoc. 1993 Award for New Fellow in Statistics"*
5. Bradley Hartlaub. 1992. Nonparametric tests for interaction in the two-way layout with one observation per cell. (co-advisor D. Wolfe)
6. Lie-Jane Kao. 1994. Designs for drug combination studies. (co-advisor W. Notz)  
*PhD dissertation won 1996 excellence award from National Science Foundation of Taiwan.*
7. James Clark. 1997. Equivalence and augmenting of fractional factorial designs.
8. Y-S Tsai. 1999. Multi-response designs. (co-advisor W. Notz)
9. Steven Bortnick 1999. Optimal designs for treatment versus control comparisons. (co-advisor J. Hsu)
10. Cheryl Dingus, 2005. Designs and methods for the identification of active location and dispersion effects.
11. Qing Liu, 2006. The level effect and optimal experimental designs for estimation of hyperparameters in hierarchical linear models. (co-advisor G. Allenby).
12. Tena Katsaounis, 2006 Fractional factorial and split-lot designs: issues in equivalence and optimality.
13. Shiling Ruan, 2007 Dependent Poisson Race Model And Modeling Dependence In Conjoint Choice Experiments (co-advisor S. MacEachern).
14. Danel Draguljić, 2010. Screening in physical and computer experiments. (co-advisor T. Santner).
15. Hyejung Moon, 2010. Group screening in computer experiments (co-advisor T. Santner).
16. Fangfang Sun, 2012. On A-optimal Designs for Discrete Choice Experiments and Sensitivity Analysis for Computer Experiments. (co-advisor T. Santner).
17. Erin Leatherman, 2013. Optimal Bayesian designs for combined physical and deterministic simulator experiments in the prediction settings. (co-advisor T. Santner).  
*(work won student poster award at DAE2012, and honorable mention for the Shewell award, CPID division of ASQ).*
18. Allen Po-Hsu Chen, 2016. Modeling Multivariate Simulator Outputs with Applications to Prediction and Sequential Pareto Minimization. (co-advisor T. Santner).

**Selected Invited Talks 2001-2019:**

- 2001** Ordinary Meeting of the Royal Statistical Society (“Read paper”)  
Cleveland Chapter of the American Statistical Association
- 2002** IIAS Conference, DeKalb.
- 2003** Int. Conf. Recent Advances Statist. Des. & Combinat., (Plenary Speaker), Athens, Greece.  
Internat. Conf. on Stat., Combinatorics & Related Areas. (Plenary Speaker), Portland ME.
- 2004** Internat. Indian Statistic. Assoc. 5th biennial conf. Athens, GA, (Special Invited Lecture)  
MODA7 (Model Oriented Data Analysis Conf.). Heese, Netherlands.
  
- 2005** International Conference on Design of Experiments, Memphis. (Plenary Speaker)
- 2006** Forum for Interdisc. Math., Lisbon, (R.C. Bose Memorial Session Keynote Speaker)  
Designed Experiments: Recent Advances in Methods & Applications, Southampton, England.  
Fall Technical Conference, Columbus, (Discussant)  
Cleveland Chapter of the ASA, Short course.
- 2007** Model Oriented Data Analysis (MODA8), Almagro, Spain  
International Conference on Advances in Interdisciplinary Statistics and Combinatorics,  
Greensboro (R.C. Bose Memorial Session Plenary speaker)  
Design and Analysis of Experiments (DAE2007), Memphis.
- 2008** Isaac Newton Institute, Cambridge, England  
INFORMS, Washington DC, October
- 2009** Illinois Institute of Technology, Chicago, April  
International Chinese Statistical Association Symposium, San Francisco, June
- 2010** Los Alamos National Labs, January.  
INFORMS, Austin, TX, November.
- 2011** Radcliffe Institute, Harvard University, Cambridge, MA, April  
ICODOE2011, Memphis, TN, Srivasatava Memorial Session, May  
Quality and Productivity Research Conference, Roanoke, VA, June 2011  
DEMA2011, Isaac Newton Institute, Cambridge, UK, September  
DAEw05, Isaac Newton Institute, Cambridge, UK, September  
Fall Technical Conference 2011, Kansas City, October
- 2012** Joint Statistical Meetings, San Diego, August  
DAE2012, Athens, GA, October, (round table presenter)
- 2013** International Workshop on Simulation 2013, Rimini, Italy, May 2013  
MODA10, Lagow Lubuski, Poland, June 2013  
Fall Technical Conference, San Antonio, Texas, October 2013.
- 2014** Royal Statistical Society Industrial and Business Section, London, UK, June 2014  
Joint Statistical Meetings, Boston, August 2014  
Int. Conf. Adv. Interdisc. Statistics. & Combinatorics, Greensboro, October 2014
- 2015** Spring Research Conference, Cincinnati, May
- 2016** Int. Conf. Adv. Interdisc. Statistics. & Combinatorics, Greensboro, October
- 2018** Workshop on UQ for inverse problems in complex systems, Isaac Newton Institute, Cambridge, UK, April
- 2019** International Conference on Risk Analysis, Vienna, Austria, April

### Professional Service:

Co-editor for *Handbook on Design of Experiments*, Chapman and Hall, 2010-2015  
Guest Co-editor for Special Issue of *JSPI* on design of experiments, 2011-2012  
Associate Editor for *Journal of Statistical Theory and Practice* 2006-  
Associate Editor for *Statistica Sinica*, 2009-2011  
Associate Editor for *Journal of Communications in Statistics* 2007-2011  
Associate Editor for *J. of the Royal Statistical Society, Series B*, 1996-2000.  
Associate Editor for *Technometrics*, 2001–2004  
Guest Co-Editor for *Metrika*; Special issue in honor of Prof. Kounias, 2005.

SPES section of the ASA, Chair Elect 2011, Chair 2012; Past Chair 2013.  
SPES section of the ASA, Chair Elect 2011.  
DAE Steering Committee, Member 2008-2012.  
DAE Steering Committee, Chair 2005-2007.  
JSM Program Chair of SPES section of the ASA, 2004-5  
JSM Program Chair Elect of SPES section of the ASA, 2003-4  
Member of Selection Committee for JASA Editor;  
National Science Foundation, eight panels, (statistics & probability, Career, REU).

### Conference Organisation and Committees

- 2000** First Midwest Conference in Experimental Design, Columbus OH (Chair of Scientific Program Committee and Local Organisation Committees)
- 2001** International Conference on Design of Experiments, Delhi, India (Int. Advisory Comm.)
- 2003** Conference for Future Directions in Experimental Design, (DAE 2003), Chicago. (Scientific Program Committee )
- 2003** Spring Research Conference, Dayton, Ohio (session organiser)
- 2004** International Advisory Committee for International Conference on Design of Experiments
- 2004** Invited and Topic Contributed SPES sessions at JSM 2004, Toronto, Canada
- 2005** Session on Screening for DAE2005, Santa Fe, Oct 2005.
- 2006** Conference Scientific Committee for “Designed Experiments: Recent Advances in Methods and Applications”, Southampton, UK.
- 2010** Conference Scientific Committee for ICODOE2011 (International Conference on (Design and Analysis of Experiments, Memphis,
- 2010** Scientific Advisory Committee for Design and Analysis of Experiments (DAE), Isaac Newton Institute for Mathematical Sciences (INI), Cambridge 2011.
- 2010** Scientific Advisory Panel for DEMA2011, Cambridge, August 2011
- 2011** Co-organizer of workshop on “Accelerating industrial productivity via deterministic computer experiments and stochastic simulation experiments”, Cambridge, September 2011.
- 2011** International Advisory Committee for the International Conference on Advances in Interdisciplinary Statistics and Combinatorics”, NC chapter of ASA.
- 2014** DAE2015, Cary, NC. (session organizer)
- 2016** ICODOE2016, Memphis, TN, (Scientific Program Committee; International Advisory Com.)
- 2016** AISC2016, Greensboro, NC, (International Advisory Committee)
- 2016** CEDA 2016, Taipei City, Taiwan, (Scientific Committee)
- 2018** AISC2018, Greensboro, NC, (International Advisory Committee)
- 2019** ICODOE2019, Memphis, TN, (Scientific Program Committee; International Advisory Com.)