Jeff Wu, Ph.D.

Coca-Cola Chair in Engineering Statistics

School of Industrial and Systems Engineering

Georgia Institute of Technology

Dr. Wu will be visiting the University of Tennessee on Friday, March 28, and will present a seminar in the titled:

Some Recent Advances in Data Integration, Modeling and Design Strategies for Computer Experiments

University Center, Shiloh room
March 28, 2008
2:30-3:30 p.m.

ABSTRACT

Standard practice in analyzing data from different types of experiments is to treat data from each type separately. By borrowing strength across multiple sources, an integrated analysis can produce better results. To this end, some Bayesian hierarchical Gaussian process models (BHGP) are proposed. The heterogeneity among different sources is accounted for by performing flexible location and scale adjustments. The approach tends to produce prediction closer to that from the high-accuracy experiment. The Bayesian computations are aided by the use of Markov chain Monte Carlo and Sample Average Approximation algorithms. The proposed method is illustrated with some real examples. The modeling problem also leads to the construction of a novel class of Latin hypercube designs to accommodate experiments at two levels of accuracy. A brief report will also be made on new work in the construction of Gaussian process models for both quantitative and qualitative factors and the associated issues of estimation.

C.F. "Jeff" Wu is a professor in ISyE and holds the Coca-Cola Chair in Engineering Statistics. He was formerly the H. C. Carver Professor of Statistics and Professor of Industrial and Operations Engineering at the University of Michigan, Ann Arbor from 1993 - July 2003, the GM/NSERC Chair in Quality and Productivity at the University of Waterloo from 1988-1993, and before Waterloo, he taught in the Statistics Department at the University of Wisconsin from 1977-1988. He earned his BS in Mathematics from National Taiwan University in 1971 and Ph.D. in Statistics from the University of California, Berkeley (1973-1976). Dr. Wu joined Georgia Tech in the summer of 2003.

Dr. Wu's accomplishments include receiving the prestigious COPSS (Committee of Presidents of Statistical Societies) Presidents Award in 1987 which is presented annually to the best researcher under the age of 40. He was elected to the National Academy of Engineering in 2004. He has also been commissioned by five statistical societies, elected a Member (Academician) of Academia Sinica, and a Fellow of the American Society for Quality, of the Institute of Mathematical Statistics and of the American Statistical Association. Dr. Wu has won numerous awards, including the 1990 Wilcoxon Prize for the best practical application paper in Technometrics, the 1992 Brumbaugh Award for the single most important paper to quality control among the publications sponsored by the American Society for Quality Control, and the 1997 Jack Youden Prize for the best review paper in Technometrics. He was the 1998 P. C. Mahalanobis Memorial Lecturer at the Indian Statistical Institutes with widely cited research work and a listing as an “ISI Highly Cited Researcher” in 2002 on www.isihighlycited.com (ISI = Institute for Scientific Information).

Dr. Wu's work is widely cited in professional journals as well as in magazines, including a feature article about his work in *Canadian Business* and a special issue of *Newsweek* on quality. He has served as editor or associate editor for several prestigious statistical journals like *Annals of Statistics*, *Journal of American Statistical Association*, *Technometrics*, and *Statistica Sinica*. Professor Wu has published more than 100 research articles in peer review journals. He has supervised 29 Ph.D.'s, out of which 14 are teaching in major research departments in statistics/engineering/ business in US/Canada and two are senior VP in major US companies. He co-authors with Mike Hamada the award-winning book "Experiments: Planning, Analysis, and Parameter Design Optimization" (Wiley, 2000).

Honors & Awards

- Shewhart Medal, American Society of Quality 2008
- Conference Honoree, The Quality and Productivity Research Conference, Madison, WI 2008
- Honorary Professor, Chinese Academy of Sciences 2006
- Honorary Professor, Beijing University of Technology 2006
- Jerome Sacks Award for Outstanding Cross-Disciplinary Research, National Institute of Statistical Sciences 2005
- Jack Youden Prize, American Statistical Association and American Society for Quality 1997, 2005
- National Academy of Engineering 2004
- Fellow, American Society for Quality 2002
- TSMC (Taiwan Semiconductor Manufacturing) Distinguished Lectureship, National Tsinghua University 2001
- LS&A Excellence in Research Award, University of Michigan 2000
- Member (Academician), Academia Sinica 2000
- John Wiley Award in Probability and Statistics 2000
- P. C. Mahalanobis Memorial Lectures, Indian Statistical Institute 1998
- Extraordinary Achievement Award, Int'l Chinese Statistical Award 1997
- Honorary Professor, Yunnan University, China 1996
- Brumbaugh Award, American Society for Quality Control 1992
- Frank Wilcoxon Prize, American Statistical Association and American Society for Quality Control 1990
- COPSS (Committee of Presidents of Statistical Societies) Award 1987
- Fellow, American Statistical Association 1985
- IMS Special Invited Paper 1985
- Fellow, Institute of Mathematical Statistics 1984
- Sloan Fellowship, Alfred P. Sloan Foundation 1983