

Ravindra Khattree

Professor

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Blurred boundaries



Ravindra Khattree's major research area is biostatistics with special emphasis on multivariate analysis, repeated measures data, classification problems and bioequivalence. He is the coauthor of two books, "Applied Multivariate Analysis with SAS Software"

and "Multivariate Data Reduction and Discrimination with SAS Software," with D.N. Naik. He has served as coeditor for the *Handbook of Statistics: Statistics in Industry-Volume 22*, with C.R. Rao and *Computational Methods for Biomedical Research*, with D.N. Naik.

In the past, Khattree has served as the Biostatistics Group Leader at the Biomedical Research and Informatics Center at the College of Human Medicine and as a visiting professor at the Department of Epidemiology, both at Michigan State University. He has been a regular consultant to biomedical and industrial researchers. He is a fellow of the American Statistical Association, an elected member of the International Statistical Institute and a winner of the Young Statistician Award by the International Indian Statistician Association. He is also a winner of the 2008 Oakland University Research Excellence Award.

On the applied side, Khattree is currently working on a study funded by the Templeton Foundation to research the interrelationship between neuro-psychologic changes in breast cancer patients and their religiosity, spirituality and quality of life. The study deals with, among other things, the effects of chemo and/or radiation therapy, as well as other socio-economic measures on these variables. Earlier, Khattree studied the relationship between dietary patterns and breast cancer outcomes and issues involving mental health and smoking. He has also been involved in studies done at the USDA examining metabolism and radiation research.

In terms of methodology developments, Khattree's recent research involves evaluation and improvement of the statistical protocols prescribed by the Food and Drug Administration for the evaluation of the bioequivalence of a generic drug relative to its brand name version. His work on classification for longitudinal data provides methods in a clinical trial set up to distinguish cases which are likely to have a particular disease from those which are healthy.

Representative Recent Publications

1. Ghosh P, Khattree R. 2009. A Bayesian approach to evaluation of individual and population bioequivalence. *Journal of Statistics and Applications* (in press).
2. Roy A, Khattree R. 2008. Classification rules for repeated measures data from biomedical research. In: *Computational Methods for Biomedical Research*, Khattree R, Naik DN, Eds 322-370.
3. Khattree R, Naik DN. 2008. *Computational Methods for Biomedical Research*. Volume 24 of *Biostatistics Series*, Chapman and Hall/CRC.
4. Boivin MJ, Ishiyama DT, Tyungu DL, Giordani B, Smith SS, Haan PS, Symonds LL, Khattree R, Blow A, Osuch JC. 2008. Quality of life in breast cancer patients, women with benign breast biopsy, and breast cancer survivors. 20th Annual meeting of the Association for Psychological Science, Chicago, IL.
5. Boivin MJ, Ishiyama D, Tyungu DL, Giordani B, Smith SS, Haan PS, Symonds LL, Khattree R, Osuch JC. 2008. Neuropsychological performance in breast cancer patients, women with benign breast biopsy, and breast cancer survivors. 20th Annual meeting of the Association for Psychological Science, Chicago, IL.
6. Boivin MJ, Smith SS, Haan PS, Symonds LL, Khattree R, Osuch JC. 2008. Cognitive impairment in women newly diagnosed with breast cancer. 60th Annual Meeting of the American Academy of Neurology, Chicago, IL.
7. Roy A, Khattree R. 2005. On discrimination and classification with multivariate repeated measures data. *J Stat Plan Inference* 134:462-485.
8. Ghosh P, Khattree R. 2003. A Bayesian approach to average bioequivalence using Bayes factors. *Journal of Pharmaceutical Statistics* 13:719-734.