

## NEW BOOKS

*Introduction to Survey Quality.* By Paul P. Biemer and Lars E. Lyberg, Wiley-Interscience, 2003, xiv+402 pp., \$94.95

This is a volume in the Wiley Series in Survey Methodology. The goal of the book is to address the need for a nontechnical, comprehensive introduction to the concepts, terminology, notation, and models encountered in the survey literature, and thus, specifically, to provide an overview of the basic principles and concepts of survey measurement quality, with particular emphasis on sampling and non-sampling error; to develop the background for continued study of survey measurement quality through readings in the literature of survey methodology; and to identify issues related to the improvement of survey measurement quality that are encountered in survey work and to provide a basic foundation for resolving them.

*Monte Carlo Statistical Methods.* By Christian P. Robert and George Casella, Springer, 2004, xxx+645 pp., \$89.95

This is the second edition of a volume in the series Springer Texts in Statistics. The first edition was published in 2002, but work for it was finished in 1998, and advances in, as well as understanding of, Monte Carlo methods have increased a great deal in the past five years. For this edition, the authors have attempted to arrange the material in a coherent, flowing story, with emphasis on fundamental principles. The book has also been revised with a view towards more accessibility and readability, breaking up the previously long chapters on Monte Carlo integration and Gibbs sampling into more readable chapters, with increasing coverage and difficulty. Chapter headings: 1. Introduction; 2. Random variable generation; 3. Monte Carlo integration; 4. Controlling Monte Carlo; 5. Monte Carlo optimization; 6. Markov chains; 7. The Metropolis-Hastings algorithm; 8. The slice sampler; 9. The two-stage Gibbs sampler; 10. The multi-stage Gibbs sampler; 11. Variable dimension models and reversible jump algorithms; 12. Diagnostic convergence; 13. Perfect sampling; 14. Iterated and sequential importance sampling. There is a bibliography of about 650 items.

*Generalized Inference in Repeated Measures - Exact Methods in MANOVA and Mixed Models.* By Samaradasa Weerahandi, Wiley-Interscience, 2004, xv+352 pp., \$89.95

This is a volume in the Wiley Series in Probability and Statistics. It presents some recent developments and classical methods in repeated measures involving mixed models, multivariate analysis of variance (MANOVA), and growth curves; repeated measures are, in fact, special classes of mixed models. Many applications in bio-medicine, including clinical trials (and also industrial experiments) involve repeated measures taken over time. This book is designed to meet the need for college textbooks in this area. Chapter headings: 1. Exact generalized inference; 2. Methods in ANOVA; 3. Introduction to mixed models; 4. Higher-way mixed models; 5. Multivariate populations; 6. MANOVA; 7. Mixed models in repeated measures; 8. Repeated measures under heteroscedasticity; 9. Crossover designs; 10. Growth curves.