

## In This Issue

Rob Kass, in "The geometry of asymptotic inference," uses simple examples to introduce and demonstrate the utility of differential geometry to statisticians. His first main example concerns distances between distributions, as derived from information measures, while the second exploits the loglinear structure of exponential families. This paper illuminates and connects mainly the classical ideas of Fisher and Jeffreys, but also of Cramér and Rao, Kullback and Leibler, Amari, Efron, and others over the past 60 years. The five discussions by Amari, Barndorff-Nielsen, Bernardo, Rao, and Reid and Fraser add other perspectives and widen the range of geometric applications and insights to statistical problems, all the time reaffirming the value of geometrical intuition and description.

Florence Nightingale David is the first woman to be interviewed by *Statistical Science*, this by Nan Laird at Berkeley in July 1988. F. N. David provides one of our most interesting interviews to date because of her unique character, because of the breadth and applicability of her research, and because so many of her associates rank among statistics' founders and notables. In the 1930s alone, she studied with and worked with Karl Pearson (her Ph.D. advisor at University College), Gossett, Fisher and Neyman. All statisticians surely will delight in this interview, and we owe Nan Laird our appreciation for obtaining and producing it.

Sandy Zabell reviews R. A. Fisher's historical account of the decline after 1920 of "inverse probability" (Bayesian methods) by rereading Fisher's sources. Particular attention is given to Boole, Venn and Chrystal, whose 19th century writings especially were used by Fisher to argue against inverse probability. Zabell argues that this justification is largely misplaced, however. Indeed, you will find the Chrystal lacuna remarkable for an intellect of his stature, and indicative of how unintuitive probability can be to someone lacking proper training in it. The discussants are Plackett and Barnard, whose history permits them to share other insights into Fisher's thinking.

One of the aims of *Statistical Science* is to provide authoritative introductions to and overviews of new research areas in statistics. Fusaro, Jewell, Hauck, Heilbron, Kalbfleisch, Neuhaus and Ashby all have made important contributions to the statistical analysis of the AIDS epidemic. They now provide a much-needed annotated bibliography focused on novel sta-

tistical methods in AIDS research. This includes over 100 statistical articles in the areas of: transmission dynamics; estimating the magnitude of the epidemic; understanding the AIDS natural history, including survival estimation; screening tests; and clinical trials. The authors also list six data sets concerning the AIDS epidemic.

Finally, Tom Ferguson shares his genius and wit in an historical piece on "Who solved the secretary problem"? This has to do with choosing the best in a sequence, with the proviso that one cannot return or continue after selection, and so it sometimes also has been called the "marriage problem." After defining the secretary problem in his own way, Ferguson concludes after Section 7 that no one has solved it. And so he ends by providing a solution! Or is it? The discussants, Samuels, Robbins, Sakaguchi and Freeman, who have contributed heavily to the formulation and solution of the secretary problem, have their own perspectives on these issues, and balance out the article by sharing them. Because it is so easily stated, and has led to such rich theoretical development by distinguished researchers, although with little impact on applications, the secretary problem is a kind of "four color problem" for statisticians. But Ferguson provides a very important application in his rejoinder, which you really must read.

*Executive Editor's remarks.* Morris H. DeGroot, the Founding Executive Editor of *Statistical Science*, turned over the editorship at the end of 1988 after a normal term covering three years of issues (1986–1988), actually having held office much longer to get the journal started. By any standard, DeGroot, with great help from his Editors, most recently Ingram Olkin (the journal's other main founder), Steve Stigler and James Zidek, performed a magnificent service to the IMS, developing *Statistical Science* into one of the most exciting and prestigious of all statistics journals. DeGroot spelled out the journal's purpose and editorial policy in his initial editorial (February 1986, Volume 1, Number 1, pages 1–2). The current Editors, Olkin, Stigler, Zidek, and now Adrian Smith, and I, also will continue to implement and develop further those standards. Thank you, Morrie, from the current Editors on behalf of ourselves, the IMS, and all statisticians for your vision, wisdom and energy given in creating this journal, *Statistical Science*.

C. N. Morris