

CONFERENCES ON STOCHASTIC PROCESSES AND THEIR APPLICATIONS: A BRIEF HISTORY

N.U. PRABHU

Center for Applied Mathematics, Cornell University, Ithaca, NY 14853, U.S.A.

In the late 1960's a group of applied probabilists in the U.S.A. became concerned about the directions in which the field of applied probability was developing, and about the status of applied probabilists in the general scientific community. Applied probabilists seem to be caught between pure mathematicians concerned with abstraction and operations researchers preoccupied with problem-solving. In an effort to improve this unhappy situation confronting applied probabilists Professor Julian Keilson of the University of Rochester, New York, invited a group of 20 probabilists to an informal meeting on stochastic processes and their applications at Rochester in 1971. We owe a debt of gratitude to Professor Keilson for this pioneering effort. It became immediately clear that the concerns of this original informal group were widely shared both in the U.S.A. and the rest of the world. The second conference was held at Leuven, Belgium, in 1972, convened by Professor Jozef Teugels of the Katholieke Universiteit te Leuven. As at Rochester, participation at this conference was only by invitation (about 40), and of the papers presented, a few were of the survey type and others were original research papers. Considerable 'openness' was introduced at the third conference held at Sheffield, England (1973), in terms of the number participating (about 100) and the nature of papers presented (invited as well as contributed). In 1973 the informal group which had organized the earlier conferences constituted themselves into a Committee—the Committee for Conferences on Stochastic Processes (CCSP), with membership representing the three geographical regions: North America, Europe and the rest of the world. The subsequent conferences arranged by the Committee were held at Toronto, Canada (1974); College Park, Maryland (1975); Tel Aviv, Israel (1976); Enschede, The Netherlands (1977); Canberra, Australia (1978); Evanston, Illinois (1979) and Montreal, Canada (1981).

The increasing interest of the international academic and scientific communities in the efforts of the CCSP led in 1975 to a formal affiliation of the CCSP with the Bernoulli Society for Mathematical Statistics and Probability (formerly known as the International Association for Statistics in Physical Sciences), as a subject area committee. Under the terms of this affiliation, the CCSP is authorized to continue to organize annual conferences on stochastic processes and their applications and, consistent with this task, generally play a role in the activities of the International

Statistical Institute, of which the Bernoulli Society is a section. Professor N.U. Prabhu was chairman of the CCSP during 1975–79. The current chairman is Dr. C.C. Heyde, and the members are D. Dawson, A. Joffe, P.E. Ney, S. Resnick, W. Whitt (North America), P. Jagers, M. Metivier, V.V. Sazonov, W. Vervaat (Europe), T. Hida, G.B. Kallianpur, M. Rubinovitch and E. Seneta (rest of the world).

The objectives of the CCSP are as follows:

(a) To encourage communication between ‘abstract’ and ‘applied’ probabilists. The conferences that are usually organized by various other societies seldom succeed in achieving this communication; they seem to concentrate either entirely on theory, or entirely on applications. Thus at the periodic meetings of societies such as the American Mathematical Society and the Institute of Mathematical Statistics, special sessions are often arranged on theoretical topics. Because of the widely diverse interests of the participants at these meetings, such sessions are not as successful as they should be. On the other hand, conferences that are organized from time to time on special fields of applications are usually tailored to the needs of the specialists in those fields.

(b) To provide greater visibility to young promising research workers in probability. The organizers of each conference give due consideration to seniority and experience but do not let these dominate their selection of invited speakers. This policy has resulted in a good ‘mix’ between senior probabilists and those who are younger in age and newer in orientation.

(c) Implicit in the two objectives described above there is a third, namely, the educational one: the CCSP seeks to play its role in encouraging the improvement of instructional and research programs by achieving a balance between abstraction and applications in the field of probability and stochastic processes.

At about the same time as the idea of these conferences was developing, a strong need was also felt for a journal that would meet more adequately the publication needs of a large group of probabilists whose areas of interest cover both the theory and applications of stochastic processes. By a fortunate coincidence, the North-Holland Publishing Company was also interested in the publication of such a journal. Negotiations resulted in an agreement to establish the journal, *Stochastic Processes and Their Applications*, in 1973 as a publication of North-Holland, with a Board of Editors consisting of Professors J.W. Cohen, J. Keilson, N.U. Prabhu and R. Syski, the Principal Editors being Keilson and Prabhu. In 1980 the Journal became an official publication of the Bernoulli Society, with Prabhu as the sole Editor.

It has been this Journal’s practice to publish a selected few of the invited papers presented at these conferences. Starting with the Tenth Conference held at Montreal (1981), the Journal will also publish the abstracts of the papers presented. Abstracts of the previous conferences (starting with the second) were published in *Advances in Applied Probability*; we are grateful to Professor J. Gani, Editor-in-Chief of that journal, for making space available for this purpose.