

ASTIN BULLETIN

A Journal of the International Actuarial Association

EDITORS:

Hans Bühlmann
Switzerland

D. Harry Reid
England

Co-EDITOR:
Alois Gisler
Switzerland

EDITORIAL BOARD:

Björn Ajne
Sweden

Klaus Flemming
FR Germany

Marc Goovaerts
Belgium

Jacques Janssen
Belgium

William S. Jewell
USA

Jukka Rantala
Finland

Bjørn Sundt
Norway

CONTENTS

EDITORIAL AND ANNOUNCEMENTS

Editorial	1
18th ASTIN Colloquium	3
Obituary on Harald Cramér	9
Obituary on Bruno de Finetti	11

ARTICLES

R KAAS and M. J. GOOVAERTS Bounds on Stop-Loss Premiums for Compound Distributions	13
J RANTALA Experience Rating of ARIMA Processes by the Kalman Filter	19
F. ABIKHALIL Finite Time Ruin Problems for Perturbed Experience Rating and Connection with Discounting Risk Models	33

WORKSHOP

F CORLIER, J. -F INGENBLEEK and J. LEMAIRE A Model to Evaluate the Rebuilding Costs of Dwellings	45
B. AJNE Comparison of Some Methods to Fit a Multiplicative Tariff Structure to Observed Risk Data	63
Corrigendum	69

IN MEMORIAM

BRUNO DE FINETTI

13th June 1906–20th July 1985

On 20th July 1985, the scientific world lost one of its greatest personalities, when Prof. Bruno de Finetti died.

To all his students, to all his readers, to those who, even occasionally, listened to his lectures or read his papers he left an enriching inheritance. In his numerous and rigorous works which gave a tremendous impetus to other researchers in applied mathematics, he always transmitted the taste for searching the truth beyond any detrimental abstraction. He showed how to use mathematics as a necessary tool for both practical applications (physics, engineering, biology, economics, statistics, actuarial science) and for a better understanding of critical and basic concepts (logic, probability, psychology).

According to Prof. de Finetti's view the real stimulus for a balanced evolution of the thought is given by a continuous spring of general ideas from particular problems and of particular observations from general theories. This means a continuous transfer from the concrete world to the abstract field and vice versa. The result should be the intuition of a unique magic reality, where all the conceptual resources are used for practical investigation and all the practical problems are employed for conceptual constructions.

This poetic vision pervaded all de Finetti's life. After getting his degree in Applied Mathematics at the Polytechnic Institute of Milan, in 1927, he preferred to devote his activity to practical fields.

From 1927 to 1931 he worked as the chief of the mathematical office for the Istituto Centrale di Statistica (Central Statistical Institute). During this period he devoted his rigour and energy to carrying out fundamental studies in the demographic field and to building up the first Italian life tables based on census results. From 1931 until 1946 he was employed by the Assicurazioni Generali firstly at the actuarial office and later as the head of the reform of all procedures following the introduction of punch card equipment.

He was a bright and loved professor at the universities of Trieste and Rome where he taught Mathematics and Probability Theory. His lessons were always simple and clear: simplicity and clearness that can only spring from a vast culture as a result of the extreme mastery of the mathematical tools and the deep understanding of the problems.

The scientific importance, the original approach and the technical refinement of de Finetti's researches are well known: he produced more than two hundred and fifty writings, some of them representing fundamental mile-stones in the development of logic, probability and economics. Among his books it is worth remembering a treatise loved by generations of students: *Matematica Logico Intuitiva* (Logic and Intuitive Mathematics) is a book that succeeds in persuading readers about the attractiveness of logic arguments.

Prof. de Finetti carefully followed the development of ASTIN association from the very beginning. He attended at the inaugural meeting and delivered a report about the methods of non life insurance in Europe. At the IV ASTIN Colloquium he acted as the rapporteur for the discussion on the extreme values theory. In Taormina he gave a stimulating lecture on "Insurance and views about probability". The final remarks of this lecture provide the actuary involved in non life field with a valid directive by giving two main suggestions, that is: "try to improve your own instinctive faculties in appreciating every single case in the framework of the experience with all more or less similar ones; be critically cautious about conclusions drawn too mechanically from complex elaborations not clearly exhibiting its significance".

GIOVANNA FERRARA

