

# ASTIN BULLETIN

A Journal of the International Actuarial Association

**EDITOR:**

**Peter ter Berg**  
Netherlands

**EDITORIAL BOARD:**

**Hans Bühlmann**  
Switzerland

**Marc Goovaerts**  
Belgium

**Jacques Janssen**  
Belgium

**William S. Jewell**  
USA

**Jan Jung**  
Sweden

**Ragnar Norberg**  
Norway

**LeRoy J. Simon**  
USA

**CONTENTS:**

Editorial	i
H. H. PANJER and G. E. WILLMOTT Recursions for Compound Distributions	1
C. S. TAPIERO The Optimal Control of a Jump Mutual Insurance Process	13
F. DE VYLDER, M. GOOVAERTS and N. DE PRIL Bounds on Modified Stop-Loss Premiums in Case of Known Mean and Variance of the Risk Variable	23
H. RAMLAU-HANSEN An Application of Credibility Theory to Solvency Margins	37
E. KREMER Rating of Largest Claims and ECOMOR-Reinsurance Treaties for Large Portfolios	47
E. KREMER A Characterization of the Esscher-Transformation	57
Book Reviews	61

## **EDITORIAL POLICY**

ASTIN BULLETIN started in 1958 as a journal providing an outlet for actuarial studies in non-life insurance. Since then a well-established non-life methodology did result, which is also applicable to other fields of insurance. For that reason ASTIN BULLETIN will publish papers written from any quantitative point of view — whether actuarial, econometric, engineering, mathematical, statistical, etc. — attacking theoretic and applied problems in any field, faced with elements of insurance and risk.

ASTIN BULLETIN appears twice a year. Each issue consisting of about 80 pages.

## **MEMBERSHIP**

ASTIN is a section of the International Actuarial Association (IAA). Membership is open automatically to all IAA members and under certain conditions to non-members also. Applications for membership can be made through the National Correspondent or, in the case of countries not represented by a national correspondent, through the Secretary:

F. E. GUASCHI

Moorfields House, Moorfields, London EC2Y 9AL  
England.

Members receive ASTIN BULLETIN free of charge.

## **SUBSCRIPTION AND BACK ISSUES**

ASTIN BULLETIN is published for ASTIN by Tieto Ltd, Bank House, 8a Hill Road, Clevedon, Avon BS21 7HH, England.

All queries and communications concerning subscriptions, including claims and address changes, and concerning back issues should be sent to Tieto Ltd.

The current subscription or back issue price per volume of 2 issues including postage is £15.00.

Copyright © 1982 Tieto Ltd

PRINTED IN GREAT BRITAIN by J. W. ARROWSMITH LTD, BRISTOL