



Dear reader:

One of the main objectives of PBSS Section is to encourage and disseminate pensions and social security-related research. With this purpose in mind, every year the PBSS Section Board awards prizes to meaningful work from members who have contributed to advance our profession. One of those prizes is the Best Paper published in the ASTIN Bulletin with a PBSS scope.

We are very happy to announce that our member **Ms. Bonnie-Jeanne MacDonald** won this prize for year 2018, for her publication “**Drawing down retirement savings - Do pensions, taxes and government transfers matter much for optimal decisions?**” along with her co-authors.

Congratulations!

Act. Abraham Hernández
Ch. PBSS Section





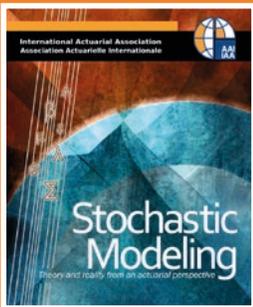
International Actuarial Association
Association Actuarielle Internationale



Risk Adjustments for Insurance Contracts under IFRS 17

The measurement model within the International Financial Reporting Standard for Insurance Contracts (IFRS 17) was designed to include risk in a key constituent in financial reporting. While a substantial amount of actuarial literature is available for various applications of risk margins, much of that material is not directly applicable to the specific needs of IFRS 17. There is a need to provide such a focused source of technical education material as IFRS 17 goes into effect. Many of the relevant risk adjustment methods for IFRS 17 transcend national borders and are relevant in any country.

Available in print (CA\$135) and e-book (CA\$ 75).



Stochastic Modeling – Theory and Reality from an Actuarial Perspective

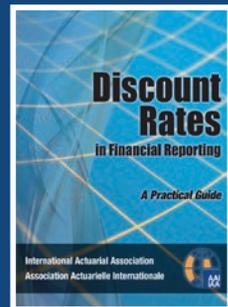
A guide for practitioners interested in understanding this important emerging field, *Stochastic Modeling – Theory and Reality from an Actuarial Perspective* presents the mathematical and statistical framework necessary to develop stochastic models in any setting (insurance or otherwise). Sufficient mathematical detail is presented but no advanced background in mathematics or statistics is required.

Available in print (CA\$135) and e-book (CA\$ 75).

Discount Rates in Financial Reporting *A Practical Guide*

The time value of money is significant to economics and in turn to the current value of projected cash flows. Recent decades have seen a growth of knowledge and available information in the areas of finance and capital markets. There still remains a need for more widespread understanding of the important aspects, from a conceptual perspective and the practical techniques relating to the discounting process in actuarial practice. The primary areas of application include financial reporting for insurance contracts and the financial reporting of pension/employee benefit plans. The objective of this monograph is to help fill this void.

Available in print (CA\$100) and e-book (CA\$ 75).



ORDER AT WWW.ACTUARIES.ORG

ASTIN Bulletin: The Journal of the International Actuarial Association

NOTES FOR CONTRIBUTORS

AIMS AND SCOPE

ASTIN Bulletin was founded in 1958 as a journal providing an outlet for actuarial studies in non-life insurance. In the late 1980s the journal extended its scope to encompass the study of financial risk in insurance (AFIR). In 2007 the journal was established as the journal of the International Actuarial Association (IAA) and encompasses all of the scientific sections of the IAA.

ASTIN Bulletin publishes papers that are relevant to any branch of actuarial science and insurance mathematics. Papers should be quantitative and scientific in nature, and might draw on theory and methods developed in any branch of the mathematical sciences including actuarial mathematics, statistics, probability, financial mathematics and econometrics.

The journal welcomes papers that present significant and original theoretical developments and papers that present significant and original applications of mathematical, statistical or econometric theory to problems arising in insurance, pensions and finance. We especially welcome papers opening up new areas of interest to the international actuarial profession as well as papers that describe open problems that have arisen in practice.

SUBMISSIONS

Papers for possible publication in the *ASTIN Bulletin* – The Journal of the International Actuarial Association should be submitted online at: <http://mc.manuscriptcentral.com/astin>. Submission of a paper is held to imply that it contains original unpublished work and is not being submitted for publication elsewhere. Receipt of the paper will be confirmed and followed by a refereeing process which will be handled by one of the editors. The editors aim to complete the refereeing of a submission in around three months. The role of a referee is to assess the quality of the academic content of the paper. If a paper is sufficiently badly written to an extent that prevents a referee from forming a proper view of the paper's scientific content, then the paper will be returned to the author unrefereed.

TEXT AND MANUSCRIPT PREPARATION REFERENCING

Before a manuscript can be published it must conform to the style of *ASTIN Bulletin*, a summary of the key points of which is listed below. The comprehensive Notes of Contributors document can be obtained from <http://journals.cambridge.org/asb/contributors>.

- The basic elements of the journal's style have been agreed by the Editors and the publisher and should be clear from checking a recent issue of *ASTIN Bulletin*. If variations are felt necessary, this should be discussed with the editor handling the paper.
- Papers should be written in English or French. It is not the job of the editors, the referees or the publisher to improve the use of English or French in the paper; it is up to the authors to ensure that the language, spelling and grammar are of a high quality prior to submission.
- Authors intending to submit longer papers (e.g. exceeding 30 pages) are advised to consider splitting their contribution into two or more shorter contributions.
- The first page of each paper should start with the title, the name(s) of the author(s), an abstract and a list of keywords. An institutional affiliation can be placed between the name(s) of the author(s) and the abstract.
- Footnotes should be avoided as far as possible.

AUTHOR AND CONTACT INFORMATION

On the title page, please provide the full name, affiliation, email and postal address of at least one author. Where the family name may be ambiguous (e.g. a double name), please indicate this clearly. For joint authored papers, please indicate the lead corresponding author and provide a contact telephone number.

REFERENCING

References should be arranged alphabetically, and for the same author chronologically. Use a, b, c etc. to separate publications of the same author in the same year. For journal references give author(s), year, title, journal (in italics), volume (in boldface), and pages. For book references give author(s), year, title (in italics), publisher, and city.

CONTENTS

Articles

Property Graphs – A Statistical Model for Fire and Explosion Losses Based on Graph Theory PIETRO PARODI AND PETER WATSON	263
Fair Valuation of Insurance Liability Cash-Flow Streams in Continuous Time: Applications ŁUKASZ DELONG, JAN DHAENE AND KARIM BARIGOU	299
Economic Scenario Generator and Parameter Uncertainty: A Bayesian Approach JEAN-FRANÇOIS BÉGIN	335
Modelling Mortality Dependence with Regime-Switching Copulas RUI ZHOU	373
Joint Life Insurance Pricing Using Extended Marshall–Olkin Models FABIO GOBBI, NIKOLAI KOLEV AND SABRINA MULINACCI	409
Bias-Corrected Inference for a Modified Lee–Carter Mortality Model QING LIU, CHEN LING, DEYUAN LI AND LIANG PENG	433
CAT Bond Pricing Under a Product Probability Measure with Pot Risk Characterization QIHE TANG AND ZHONGYI YUAN	457
Index Insurance Design JINGGONG ZHANG, KEN SENG TAN AND CHENGGUO WENG	491
Ordering Properties of Extreme Claim Amounts from Heterogeneous Portfolios YIYING ZHANG, XIONG CAI AND PENG ZHAO	525