



31 May - 03 June 2016
at
ISEG- Lisbon School of Economics
and Management

If you intend to submit a paper for the ASTIN COLLOQUIUM LISBOA 2016, you need to provide a **Synopsis** (using the template on the next page), complete this **Submission Form** and submit both to astincolloquium2016@gmail.com by **Saturday 7 May 2016**. Synopses and submission forms must be sent as MSWord attachments, please do not supply them in the body of an email. You will be advised of the outcome and, if accepted, your abstract will be uploaded to the website.

SUBMISSION FORM

Name: Emmanuel Koenig	Company: Monceau Assurances
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Title of Paper / Presentation / Session to appear in program: Coherent Incurred Paid (CIP) models for claims reserving	
Author/s:	
1. Gilles DUPIN	2. Emmanuel KOENIG
3. Pierre LE MOINE	4. Alain MONFORT
5. Eric RATIARISON	

What will your final submission be? Presentation and Paper Presentation Only

If selected, what level of knowledge will delegates attending your session require? (please select only) one

No prior knowledge General industry knowledge assumed Technical/specific industry knowledge assumed

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ABSTRACT

(TITLE OF PAPER / PRESENTATION TO APPEAR IN PROGRAM)

Coherent Incurred Paid (CIP) models for claims reserving

(Name of Author/s)

Gilles DUPIN, Emmanuel KOENIG, Pierre LE MOINE, Alain MONFORT, E. RATIARISON

Key words: (enter up to 8 key words applicable to your abstract / paper / presentation)

Incurred and paid claims, simultaneous estimation, correlation, semi-parametric approach, tail development, prediction, updating, CDR, VaR

Purpose of your paper: (To assist delegates / readers searching for your paper on the website after the event, please enter a brief description (maximum 220 characters) on the purpose of your paper.)

We propose a new method to predict simultaneously incurred and paid claims, imposing equality of these variables at the ultimate development year. We also derive measures of the reserve risk based on the CDR's, taking into account non-normality and updating of the estimates.

Abstract: (Place text here using font size Calibri (Body) 11)

In this paper we first propose a statistical model, called Coherent Incurred Paid (CIP) model, to predict future claims, using simultaneously the information contained in incurred and paid claims. This model does not assume log-normality of the levels (or normality of the growth rates) and is semi-parametric since it only specifies the first and the second moments. Correlations between growth rates of incurred and paid claims are allowed and the tail development period is estimated. We also propose methods for computing the Claim Development Results (CDR) and their Values at Risk (VaR) in this semi-parametric framework. Moreover we show how to take into account the updating of the estimation in the computation of the CDR's. An application highlights the practical importance of relaxing the normality assumption and of updating the estimation of the parameters.

The complete paper is available upon request at the following address EKOENIG@monceauassurances.com

Note: If you are not presenting a paper for this Colloquium, please include as much detail as possible in your Abstract (maximum three pages) to enable delegates to prepare for your session.

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