



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:	Michael Fackler	Company:	independent actuary
T:		M:	
E:	michael_fackler@web.de		
Title of Paper / Presentation / Session to appear in program:	How to infer the layer variance from the expectation		
Author/s:			
1.	Michael Fackler	2.	
3.		4.	

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

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

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

Note: If you are asked to present at ASTIN COLLOQUIUM LISBOA 2016, it will still be necessary for you to register and pay to attend the Colloquium. IAP does not subsidize, discount, pay for, or extend special registration offers for presenters or delegates.

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ABSTRACT

How to infer the layer variance from the expectation

Michael Fackler

Key words:

Layer, Collective model, Contagion, Convexity, Pareto, GPD

Purpose of your paper:

We give some approaches to approximating the variance of a (re)insurance layer if essentially only the risk premium is known.

Abstract:

Sometimes practitioners have the risk premium of a (re)insurance layer, but only vague further knowledge. We describe some ways to develop a consistent underlying model from such limited information, or at least to estimate the variance of the loss to the layer.

By using the collective model with a particular parametrization, model risk becomes transparent. It turns out to be often surprisingly low, at least for the loss severity, while it can be surprisingly high for the loss count.

However, model risk can often be contained with the help of market knowledge and some common distribution models. Further it is possible to give parameter-free upper and lower bounds for the layer variance, just by using basic geometric properties of the loss severity.

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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