Third Year a Charm for ERM Symposium Scientific Papers Track
By Steven C. Siegel, SOA Research Actuary

In 2006, the ERM Symposium established its first-ever annual call for ERM-related research papers to present the very latest in ERM thinking and move forward principle-based research. Originally the brainchild of Max Rudolph, the 2006 Symposium Call for Papers set into motion high expectations for succeeding years in the quest for expanding the repository of ERM knowledge. Building on the successes of 2006 and 2007, I am pleased to report that the 2008 ERM Symposium Scientific Paper Track continues to push the envelope in terms of both quantity and quality of papers.

Max Rudolph, chair of the ERM Symposium Call for Papers

With 65 abstracts submitted for review — a 40 percent increase over 2007 — the level of response again confirms the cross-industry interest in this topic. The papers review committee, chaired by Rudolph, included returning members Mark Abbott, Maria Coronado, Sam Cox, Steve Craighead, Krzysztof Jajuga, Jeanne Nallon, Dan Oprescu, Nawal Roy, Matthieu Royer, Richard Targett, Fred Tavan and Al Weller as well as newcomers John Birge, Dan Rosen, Greg Slone and Robert Wolf. Choosing from among the 65 abstracts for nine presentation slots at the symposium required a great deal of review and careful consideration. Given the quality and number of abstracts, as in previous years, the committee wished there were more speaking slots available

The final task of the committee was to select the prize winning papers. The three prizes awarded at the symposium are: the Actuarial Foundation ERM Research Excellence Award for Best Overall Paper; the PRMIA Institute New Frontiers in Risk Management Award; and the Joint Risk Management Section Award for Practical Risk Management Applications.

The award winners along with the paper abstracts are shown below. Awards were presented at the ERM Symposium Opening session held on April 15th.

2008 Actuarial Foundation ERM Research Excellence Award for Best Overall Paper:
"A Practical Concept of Tail Correlation" by John Manistre

John Manistre (right) accepts the third annual Actuarial Foundation award from Gary Josephson.

ABSTRACT

This paper shows how the results of copula based capital aggregation models can always be locally approximated by relatively simple formulas. The paper defines the concepts of diversification factor and tail correlation matrix and describes methods for estimating these quantities from simulated data. We show how these ideas can be put into practice as both computational short cuts and presentation tools. Some examples are then developed which suggest that, when copula based models are used to aggregate capital, two new phenomena emerge a) diversification benefits are reduced because of additional tail dependence in the copula and b) diversification benefits are increased when aggregating risks that have finite variance and the model does not have too much symmetry. Since few of the risks held by a life insurer are so heavy tailed that they have infinite variance, the paper concludes by arguing that simple, correlation matrix based, capital aggregation formulas are more defensible than previously thought.

2008 PRMIA Institute Award for New Frontiers in Risk Management: Klaus Bocker and Martin Hillebrand for "Interaction of Market and Credit Risk: An Analysis of Inter-Risk Correlation and Risk Aggregation"

Klaus Bocker (right) accepts PRMIA Institute award from John Birge

ABSTRACT
In this paper we investigate the interaction between a credit portfolio and another risk type, which can be thought of as market risk. Combining Merton-like factor models for credit risk with linear factor models for market risk, we analytically calculate their inter-risk correlation and show how inter-risk correlation bounds can be derived. Moreover, we elaborate how our model naturally leads to a Gaussian copula approach for describing dependence between both risk types. In particular, we suggest estimators for the correlation parameter of the Gaussian copula that can be used for general credit portfolios. Finally, we use our findings to calculate aggregated risk capital of a sample portfolio both by numerical and analytical techniques.

2008 Joint Risk Management Section Award for Practical Risk Management Applications: Donald Pagach and Richard Warr for "An Empirical Investigation of the Characteristics of Firms Adopting Enterprise Risk Management"

Don Pagach (left) and Richard Warr (center) accept Joint Risk Management Section award from Fred Tavan

ABSTRACT

We use a hazard model to examine the factors that influence firm level adoption of enterprise risk management (ERM). We find that firms that are more levered, have more volatile earnings and have exhibited poorer stock market performance are more likely to initiate an ERM program. When the value of the CEO's option and stock portfolio is increasing in stock volatility, the firm is also more likely to adopt ERM. Our results suggest that ERM is being used for reasons beyond basic risk management. These other reasons include offsetting CEO risk taking incentives and seeking improved operating performance.

We wish to thank all the organizations and committee members for their support and for making this a success.