Key words: Stochastic Loss Reserving, Bayesian MCMC Models

Purpose of your paper: Show how to use a Bayesian MCMC model for stochastic loss reserving to calculate a cost of capital risk margin for non-life insurance liabilities

Synopsis: A Bayesian MCMC stochastic loss reserve model provides an arbitrarily large number of equally likely parameter sets that enable one to simulate future cash flows of the liability. Using these parameter sets to represent all future outcomes, it is possible to describe any future state in the model's time horizon including those states necessary to calculate a cost of capital risk margin. This paper shows how to use the MCMC output to: (1) Calculate the risk margin for an "ultimate" time horizon; (2) Calculate the risk margin for a one-year time horizon; and (3) Analyze the effect of diversification in a risk margin calculation for multiple lines of insurance.

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