Bayesian modelling and allocation of insurance risks

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Resumo/Abstract:

In this talk I will present a fully Bayesian model for actuarial claims reserving consistent with the guidelines provided by the Swiss Solvency Test, the Swiss regulatory directive. This model is, then, used to compute the company's overall actuarial reserve, which, in a second stage, must be allocated to its individual lines of business. To compute the quantities involved in the process of allocation of capital to sub-units I will present a recently developed algorithm based on (pseudo-marginal) Sequential Monte Carlo methods. Joint work with Gareth W. Peters (UCL), Pavel Shevchenko (Macquarie) and Mario Wuthrich (ETH).