

**2000 GENERAL INSURANCE CONVENTION  
25-28 OCTOBER**

**STOCHASTIC RESERVING WORKING PARTY**

**GIRO October 2000**

## **Stochastic Reserving Working Party**

### **Members:**

Anders Brix  
Hervé Fagnoni (chairman)  
Joe Monk  
Justin Skinner

### **Summary:**

The working party has investigated the need of the actuaries towards stochastic reserving models, and how their needs are reflected in the models.

Our work has then focused on Tom Wright's model [3] as an example. In particular, we show how to implement and test the model.

Since no single model will be suitable in all situations, we present a section on how to choose different types of models.

We finally show simulated results comparing Wright's model against two classical models: the bootstrap method [1] and Mack's method [2].

The spreadsheet used in order to compare the methods will be made publicly available on the internet.

[1] England P., Verrall R., "Analytic Bootstrap estimates of prediction errors in claims reserving", *Insurance Mathematics and Economics* 25, 1999, pp281-293.

[2] Mack T., "The standard error of chain ladder reserve estimates: recursive calculation and inclusion of a tail factor", *ASTIN Bulletin* (29)2, 1999, pp. 361-366.

[15] Wright T.S., "A stochastic Method for Claims Reserving in General Insurance", *Journal of the Institute of Actuaries* 117 Part III, 1990, pp. 677-731.