## Workshop: An Introduction to Statistical Premium Rating

### Duncan Anderson

#### Purpose

The aim of the workshop will be to provide an introduction to the statistical techniques commonly used in motor premium rating.

The discussion will be specifically targeted at those who are new to general insurance or who have little or no experience of personal lines premium rating.

The workshop will consist of a presentation followed by a discussion.

#### Content

The presentation will cover the following topics:

- a brief overview of the stages involved in the rating process, including

  - analysing the claims experience

  - allowing for expenses and profit

  - considering policyholder retention and price elasticity

  - considering the competitive situation

  - deriving the optimal tariff

- an introduction to the theory and application of generalised linear models, including

  - the advantages of generalised linear models over simpler analysis

  - model forms typically used

  - statistical diagnostics

- an overview of the practical steps involved in the analysis of claims experience, including:

  - data preparation

  - initial investigations

  - dealing with NCD and other restrictions.