

Insurance Risk: evaluation and management (coordinator: S. Biagini/E. Vannucci)

Course Description:

Insurance business has a key role in many fields of risk transferring and hence we describe how to develop proper models of risk evaluation in many different applications both of life and of non-life insurance markets. Pricing and reserving are described both in life and in no-life insurance business. Interconnection between financial and insurance markets is described in detail, especially in the sense of the disclosure of financial product embedded into life insurance contracts. A survey of the quantitative effects of the most recent regulations in terms of International Accounting Standards (IAS) is given.

Objectives:

Skills: introduction to insurance risk evaluation and management both in life and non-life insurance business: pricing and reserving, the role of insurance business in transferring risk

Knowledge: demographic and financial aspects for life insurance evaluation, risk measures for non-life insurance risk with specific focus the extremes quantile analysis, reinsurance and other model for risk transferring and diversification

Attitudes: to be familiar with quantitative aspects of insurance risk both in life and non-life insurance business.

Main Contents:

1. Sources of risk in life insurance business: demographic and financial risks
2. Pricing and reserving in life insurance
3. Disclosure, evaluation and management of financial products embedded in life insurance contracts
4. A survey of non-life lines of business
5. Risk measure in non-life business: extreme value and multivariate models
6. Risk transferring via reinsurance
7. ???
8. ???