The Chain-Ladder Claims Reserving Method in Insurance

Speaker: Mario V. Wüthrich

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Venue: A2-104, International University, VNU-HCM

Abstract:
Claims reserving is one of the most important tasks in general insurance. This workshop aims at describing the claim reserving topic in full detail. We therefore concentrate on the chain-ladder method to describe the problem and complete the claims reserving task. In a first step we describe the deterministic chain-ladder algorithm. In the second step we present Mack's stochastic chain-ladder model which allows to assess the uncertainties in the claims reserving process. In the final step we discuss the dynamics of the claims reserving problem resulting in the Merz-Wüthrich formula. These derivations are fully in line with modern solvency considerations such as Solvency II in Europe and we describe how these methods are used for solvency considerations. For all methods presented there exists the R package ChainLadder which we are going to describe and use during the workshop. The workshop will also be supported by applied numerical examples.

Literature:
2) ChainLadder: statistical methods and models for the calculation of outstanding claims reserves in general insurance, Gesmann, M., Murphy, D., Zhang, W., Carrato, A., Crupi G., Wüthrich, M.V. (2015), CRAN package, version 0.2.0.

Speaker’s CV:
Mario V. Wüthrich is Professor in the Department of Mathematics at ETH Zurich, Honorary Visiting Professor at City University London, Honorary Professor at University College London, Adjunct Professor of University of Bologna and Swiss Finance Institute Professor. He holds a Ph.D. in mathematics from ETH Zurich. From 2000 to 2005, he held an actuarial position at Winterthur Insurance and was responsible for claims reserving in non-life insurance, as well as for developing and implementing the Swiss Solvency Test. He is a fully qualified Actuary SAA, serves on the board of the Swiss Association of Actuaries, and is editor of ASTIN Bulletin and the European Actuarial Journal.