Ratemaking and Experience Rating
Master in Actuarial Science - 2nd year, 1st semester (2013/2014)

1 Programme

1. Introduction and concepts
2. Credibility theory
   (a) The credibility formula
   (b) Classical and Bayesian methodology
   (c) Bühlmann's model
   (d) Bühlmann-Straub's model
   (e) Exact credibility
   (f) Parameter estimation
3. Bonus-malus systems
   (a) Introduction and definitions
   (b) Markov analysis
   (c) Evaluation measures
4. Ratemaking and GLM. Applications

2 References

- Klugman, S.A.; Panjer, H.H. & Willmot, G.E. (2012). *Loss Models, From Data to Decisions*, 4th edition, John Wiley, Hoboken NJ.
- Kaas, R.,Goovaerts, M., Dhaene, J. e Denuit, M. (2008). *Modern Actuarial Risk Theory: Using R*, 2nd edition, Springer.
- Ohlsson, E. & Johansson, B. (2010). *Non-Life Insurance Pricing with Generalized Linear Models*, EAA series/EAA Lecture Notes, Springer.
- Centeno, M.L. (2003). *Teoria do Risco na Actividade Seguradora*, Celta Editora, Oeiras, Portugal.

Alfredo D. Egídio dos Reis, Gab. 305 Edif BJC, Ext 4963

alfredo@iseg.utl.pt, https://aquila.iseg.utl.pt:443/aquila/homepage/f245