

This thesis deals with an issue of claims reserving for non-life insurance. The issue is approached in a sense of analytical calculation and stochastic modelling. First, Chain-ladder, Bornhuetter-Ferguson, Benktander-Hovinen and Cape-Cod method are introduced. In following chapters, we try to find related stochastic underlying models including Generalized linear models and Mack's distribution-free approaches, we analyze second moments of claims estimates for each of the methods and examine alternative Merz-Wüthrich approach to reserve risk measurement. At the end, bootstrap algorithm and estimates are suggested and simulation results are compared with analytic ones.