

This thesis is focused on the approximation of the distribution of aggregate losses. We first present a method for modelling aggregate losses, which involves selecting an appropriate frequency and severity distributions. Next, the computation of aggregate losses as the sum of the respective number of individual losses is explained. In the second section, we discuss the approximation of the distribution of the simulated aggregate losses. We present the distributions chosen for the approximation, the method for estimating the parameters of these distributions, and the subsequent testing of fit of these distributions with the actual distribution of the simulated aggregate losses. In the third chapter we show the results of this approximation and indicate the suitability of using each of the considered distributions for modelling aggregate losses. In the last section, we introduce the Edgeworth approximation as a method for approximating the distribution of aggregate losses.