

The risk theory studies mainly the behaviour of compound point processes and processes derived, where in random times increments of random size occur. The main objective of the present thesis is to collect in a systematic way the results on compound point processes and verify them by simulations. The essential parts of this work deal with risk processes and so called ruin event. We concentrate mostly to the case of compound Poisson process, with independent and identically distributed increments. The results concerning both light-tailed and heavy-tailed distributions are presented. To this end, the classification of probability distributions along their tails is recalled, too.