

WiSe 2018/19

Actuarial Mathematics 1

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General Information

- **Lecture** by Dr. Sojung Kim
Thursday 16:15 - 17:45 (Begin: 18 October, 2018) @ F428, 1101
Office hour: by appointment, at the office B406, 1101
Email: sojung(at)stochastik.uni-hannover.de
- **Exercise and Tutorial** by M. Sc. Kerstin Weske
Exercise: Wednesday 08:00 - 9:45 (Begin: 24 October, 2018) @ B305, 1101
Tutorial: Wednesday 09:00 - 10:45 (Begin: 24 October, 2018) @ B305, 1101
Email:weske(at)stochastik.uni-hannover.de
- **Main textbook** Non-Life Insurance Mathematics: An Introduction with the Poisson Process, (2009, second edition), by Thomas Mikosch

Course Topics

The course provides the standard stochastic models of non-life insurance mathematics. We discuss collective risk models based on Poisson and renewal processes, claim size models, and ruin theory. Students are expected to develop a deep understanding of the theory behind the Cramér-Lundberg model and claims reservation. At the end of the course, we will shortly discuss a basis of life contingent risks.

Course work will include regular homework assignments and a final exam. The requirement of homework to pass the course is 50%.

For prerequisites, students should have a general understanding of calculus, probability theory, mathematical statistics and stochastic processes. It will be helpful if one has some knowledge of financial markets and instruments.