# Ruin Probability and Martingales

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**Abstract**

The application of martingale methodology to risk theory is proposed by Prof. Gerber. Since Prof. Gerber's 1973 paper: "Martingales in risk theory", martingale has become a popular tool in ruin theory. In this talk, I shall use a number of models to illustrate the idea and show how to apply martingale method in various models to estimate the ruin probability.

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