

Title

**What are the Basic Similarities and Differences between Insurance Risk Modelling and Standard Machine Learning Techniques? – An Overview**

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Speaker/Company

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Abstract

In industry, it is regularly encountered that there is some confusion about the similarities and differences between insurance risk modelling and standard machine learning techniques. Hence, we have developed simple overview table which helps to eliminate most of these ambiguities. In this talk, we discuss this table while covering quantitative and qualitative aspects. The talk will consist only of a single slide for the whole talk. The goal of the presentation is to help actuaries, data scientists, management and insurance specialists to better understand the conceptual commonalities and differences between the two disciplines. The table shall also serve to decide which modelling approach is appropriate for a given modelling challenge.

This work has been done as part of the “Data Science” working group of the Swiss Association of Actuaries (SAA). The group publishes material that discuss the use of machine learning techniques for actuarial applications, see the group’s website [www.actuarialdatascience.org](http://www.actuarialdatascience.org) for further information.

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Biography

Dr Jürg Schelldorfer is a Senior Actuarial Data Scientist in the Advanced Analytics Center of Excellence (CoE) at Swiss Re. He is a fully qualified actuary of the Swiss Association of Actuaries (SAA) and the chair of the SAA "Data Science" working party. In 2018, he was a visiting lecturer at the University of Basel. Previously, he worked for KPMG Switzerland and AXA Switzerland as a non-life actuary. He studied mathematics at the ETH Zurich and received his doctorate in statistics from the same institution.

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