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Editorial

Special Issue “Risks: Feature Papers 2021”

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The 2021 Feature Papers Special Issue is a list of high-quality research output that shows the width and the breadth of the journal Risks. In the dimension of randomness, the Special Issue ranges from the introduction of new advanced probability models over more standard statistical analyses of market data to the model-based qualification of expert opinions. In the dimension of application, this Special Issue ranges from neoclassic micro-pricing in car insurance over longevity and annuity risk to issues of asymmetry in the credit and ESG investment markets.

Pitarque and Guillen (2022) work with the identification of risky driving by predicting the proportion of time driven above the speed limit. This identification can be used for real-time risk scoring and micro-pricing. Xie (2021) addresses the issues of model explainability and transparency when using machine learning techniques for insurance pricing. Variable importance is evaluated to investigate the impact of major risk factors on claims frequency and claim amounts. Staudt and Wagner (2021)’s model claim severity by different random forest models and compare their performance. The results in the car insurance market are illustrated.

Candelon et al. (2021) are concerned with information asymmetry in the ESG investment market. A mismatch between real and modeled ESG implications in investment portfolios calls for the regulation of information. Gibilaro and Mattarocci (2021) study the information asymmetry among lenders in the credit market. The impact on different lenders’ credit risk assessment from the disclosure of information by a financial intermediary is studied. Prusak and Potrykus (2021) analyse price data around the dates of bankruptcy and restructuring. Statistical results for different markets are provided.

Escobar-Anel and Gong (2021) propose a multivariate mean-reverting 4/2 stochastic volatility model. They provide statistical inference as well as probabilistic results in semi-closed form, which is useful for, e.g., derivative pricing. Hofert and Ziegel (2021) propose a class of tilted Archimedean copulas that combine the properties of Archimedean and elliptical copulas. The properties of the generalised copula class are studied.

Makariou et al. (2021) provide a mixture model as a foundation for combining experts’ different opinions. The model can be used for the calculation of expert-based risk measures. Bolancé and Guillen (2021) use non-parametric estimations of extreme quantiles in lifetime distributions to assess longevity risk and the risk in a life annuity portfolio.

The future draws on further developments in many of the directions already pushed forward in this Special Issue. Better risk models; more insight, transparency, and clarity in data and the use of data; and a better transfer of knowledge to decision making under risk; are core subjects to Risks. They help financial and insurance institution make better decision and better products to the benefit of their customers, themselves, and society. Risks will provide much more of that in the years to come. Enjoy this special collection of contributions from 2021!

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References


Pitarque, Albert, and Montserrat Guillen. 2022. Interpolation of quantile regression to estimate driver’s risk of traffic accident based on excess speed. *Risks* 10: 19. [CrossRef]

