



Department of
Mathematical Sciences

Colloquium

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Friday, April 30th,
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Online via Microsoft
Teams



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Using Model Averaging to Determine Suitable Risk Measure

Recent research in loss modeling resulted in a growing number of classes of statistical models as well as additional models being proposed within each class. Empirical results indicate that a range of models within or between model classes perform similarly well, as measured by goodness-of-fit or information criteria when fitted to the same data set. This leads to model uncertainty and makes model selection a challenging task. We propose an approach to estimate risk measures that accounts for model selection uncertainty based on model averaging. We exemplify the application of this approach by considering a large class of 196 different left-truncated composite models. The resulting point estimates for the risk measures take the model uncertainty into account. A simulation study highlights the benefits of this approach. The data set on Norwegian Fire losses is used to illustrate the proposed methodology.



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