RISK AND RUIN IN A LARGE CLAIMS INSURANCE MARKET WITH BIPARTITE STRUCTURE

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In this talk we introduce a bipartite network model for an insurance market. Using Pareto-tailed losses and multivariate regular variation, we obtain asymptotic results for systemic conditional risk measures based on the Value-at-Risk and the Conditional Tail Expectation. These results allow us to assess the influence of an individual institution on the systemic or market risk and vice versa through a collection of conditional systemic risk measures. Further we give results for ruin probabilities in this setting, which involves introducing a network Pollaczek–Khintchine constant.

This talk is based on joint papers with Anita Behme, Oliver Kley and Claudia Klüppelberg.

References

