Forschungsgruppe Finanz- und Versicherungsmathematik
TUM School of Computation, Information and Technology
Technische Universität München

TUM

Announcement Summer Term 2025
Advanced Seminar

Cyber Risk and Insurance

Prof. Dr. Matthias Scherer & Markus Maier

Modulnr.:   CIT0000004252

Content: **Cyber data studies**
Topic 1: Data breaches and clustering approaches
Topic 2: Distributional characteristics of (extreme) cyber risk

Adapting actuarial models to cyber
Topic 3: A frequency-severity model for cyber risk
Topic 4: A bonus-malus security incentive

Network models in cyber insurance
Topic 5: Epidemiological models in cyber
Topic 6: Cyber risk in networks

Cyber insurance games
Topic 7: Cybersecurity and cyber insurance
Topic 8: Increasing security through third-party services

Continued next Semester: No

Audience: Master's students

Prerequisite: Insurance Mathematics 1

Literature: Selected academic papers

Certificate: 3 CP

Date: The final presentations take place on July 7 and 8, 2025