Lecture Series of the Research Institute for Supply Chain Management

Friday, November 17, 2023, 13:30 pm

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Building TC, Room TC 2.03,
Welthandelsplatz 1,
1020 Vienna

PETER KLIMEK:
DATA-DRIVEN RESILIENCE ANALYSES OF SUPPLY NETWORKS:

With recent advancements in data collection and processing at scale, it is now feasible to map production networks at scale, providing a data-driven comprehension of critical dependencies, their resilience and how these properties develop over time. In this lecture, I will provide a summary of recent studies that have charted the configuration of production networks at the level of companies across national settings utilizing tax or payment information. Such datasets can be used to better understand resilience in various contexts, ranging from systemically important companies over food security to supply chain due diligence issues. Additionally, I will demonstrate how machine learning techniques can be deployed to more comprehensively map the multirelational dependencies in production networks of firms. In conclusion, the study aims to provide a comprehensive depiction of the subject matter. Overall, these works demonstrate that a better and more fact-based understanding of these networks will be key to achieve Europe's strategic objectives, including the establishment of secure and sustainable supply chains.

Peter Klimek is Director of the Supply Chain Intelligence Institute Austria (ASCII), holds an associate professorship at the Medical University of Vienna and is a faculty member at the Complexity Science Hub Vienna. His research aims to improve our understanding and ability to predict complex socio-economic systems, ranging from human diseases and healthcare systems to economic and financial systems. Peter received his PhD in Physics in 2010 and a Venia Docendi (Habilitation) in Computational Science in 2018. He is the author of about 100 scientific publications, received the Paul Watzlawick Ring of Honour and was named Austrian Scientist of the Year 2021.

For further information, please contact sekretariat.itl@wu.ac.at