

# Supply Chain Resiliency

Session co-chairs:

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## Abstract

The growing decentralization of information and industrial systems across supply chains is linked to several trends. With the growth of global production networks, original equipment manufacturers (OEMs) have increasingly become system integrators rather than simply producers of products. On the other hand, supply chain disruptions caused by events like the blockage of the Suez Canal or COVID-19 increases the desire to design and manufacture products closer to the end user, which provides more stakeholder involvement in the product-development process by enabling more individualized products while also reducing the logistics risks and transportation costs. These trends require resilient supply chains that can respond effectively to disruptions and emerging risks.

Approaches such as Lean Manufacturing and Just-in-Time are great in reducing operational cost of supply chains but bring the tradeoff of making the supply chains more fragile. Also, industry lacks the ability to effectively monitor and control supply chains today. Manufacturers cannot quickly pinpoint the cause of supply-chain disruptions or certify a supply chain is running securely. Supply Chains need the ability to balance cost, schedule, performance, and risk --- where a conscious decision may be to increase the cost of the supply chain operations to ensure the system is resilient in responding to perturbations and disruptions. Further, academic researchers and industrial developers need realistic supply-chain testing environments to prove out concepts, ideas, and tools.

This session will explore novel ideas for addressing global supply chain issues. The talks will look beyond traditional supply chain and manufacturing approaches to include concepts in socio-technical system design, advanced modeling and simulation, behavioral economics, actuarial and management sciences combined with law and policy.

## Speakers (in order for one-day session)

*Building Systematic Context and Physical Interoperability for Decentralized, Human-driven Supply Chain Design and Operations*

[Jennifer Pazour](#), PhD

*Beyond SCRM: Supply Chain Risk and Resilience as the Fourth Pillar of Design*

[Timothy Sprock](#), PhD

*How Technology-based Insurance Solutions can Contribute to Supply Chain Resilience*

[Alexander Skorna](#)

*How AI and Data Science can Contribute to Supply Chain Resilience*

[Henning Blunck](#)

**Session Part I (60 min)**

5 min introduction by Session Chairs

15 min presentation speaker 1

15 min presentation speaker 2

15 min presentation speaker 3

15 min presentation speaker 4

**Break****Session Part II (60 min)**

40-50 min Q & A (moderated by Session Chairs)