

# DESIGNING EMERGENCY MEDICAL SERVICE SYSTEMS TO ENHANCE COMMUNITY RESILIENCE

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**MONDAY, MARCH 26**

**6:30 PM – 7:30 PM**

**Farzaneh Hall, Room 148**

Emergency response to patients with medical needs after a disaster is a critical aspect of public safety and community resilience. An effective response to emergency medical patients can be achieved by designing a system that

- Allocates limited resources such as ambulances in resource-constrained settings,
- Leverages data and triage information to inform the design of response districts, and
- Sheds light on how these decisions change after a disaster.

In this talk, Dr. Laura Albert will discuss how analytical methods can be used to design emergency response systems and provide guidance into how to design data-driven emergency response systems. She will discuss how system design decisions must change after weather disasters when the system is congested and critical infrastructure is impaired.

Laura Albert, Ph.D., is the Assistant Dean for Graduate Affairs in the College of Engineering and an Associate Professor of Industrial & Systems Engineering at the University of Wisconsin-Madison. Her research interests are in the field of operations research, with a particular focus on discrete optimization with application to homeland security and emergency response problems. Dr. Albert's research has been supported by NSF, DHS, and the Department of the Army, Sandia National Laboratory, and she has been awarded an NSF CAREER award. She has authored or co-authored more than 50 publications in archival journals and refereed proceedings. Her research has been awarded several honors, including four best paper awards. Dr. Albert is the INFORMS Vice President for Marketing, Communication, and Outreach. She is the author of the blogs "Punk Rock Operations Research" and "Badger Bracketology." You can find her on twitter at @lauraalbertphd.

## **Analytics of Resilient Cyber-Physical-Social Networks**

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