samsi
NSF·Duke·NCSU·UNC

Summer Program on Transportation Statistics
August 14-18, 2017

Lecture: *Evaluating Safety in Self-driving Cars: data and analytical challenges*

Speaker: Carol Flannagan

Abstract:

As the analysis by Kalra & Paddock (2016) demonstrated, traditional crash data and analysis approaches may require hundreds of millions or billions of self-driving miles to achieve sufficient power to demonstrate that automated vehicles (AVs) have lower injury/fatality risk than human-driven vehicles. Moreover, crash risk for AVs is a moving target as algorithms and systems change, and the mistakes AVs will make are not necessarily the same mistakes humans make. Thus, we need to rethink both the data that will make up transportation safety datasets in the near future as well as the analytical approaches used. I will present some newer data-collection approaches along with some specific challenges that might call for different analytical approaches than are being used for crash data today.