



Summer Program on Transportation Statistics

August 14-18, 2017

SCHEDULE

Monday, August 14, 2017

Information Initiative @ Duke (iiD)

West Campus, Duke University

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| 8:45-9:00 | Registration |
| 9:00-9:30 | Introductions and Welcome – David Banks , Duke University Chair: David Banks , Duke University |
| 9:30-10:15 | Roya Amjadi , Federal Highway Administration <i>“Why Highway Crashes Have Recurring Patterns?”</i> |
| 10:15-11:00 | Feng Guo , Virginia Tech <i>“Statistical Issues of Evaluating Traffic Safety Using Naturalistic Driving Study”</i> |
| 11:00-11:30 | Break |
| 11:30-12:15 | Fan Li , Duke University <i>“Causal Inference in Traffic Safety Studies”</i> |
| 12:15-1:30 | Lunch |
| 1:30-2:15 | John Ivan , University of Connecticut <i>“Application of Spatio-Temporal Methods to Identify Crash Prone Speed Conditions on Limited Access Roadways”</i> |
| 2:15-3:00 | Karthik Konduri , University of Connecticut <i>“Trajectory-based Regression Approach to Predict Real-Time Traveler Information Using Crowdsourced Location Traces”</i> |
| 3:00-3:30 | Break |
| 3:30-4:15 | Nalini Ravishanker , University of Connecticut <i>“Dynamic Modeling and Prediction Approaches for Sparse Spatial and Temporal Data”</i> |
| 4:15-5:00 | Presentation on DOT Datasets |
| 5:00 | Adjourn, Shuttle to Hotel |

Tuesday, August 15, 2017

Information Initiative @ Duke (iiD)

West Campus, Duke University

Chair: **Fan Li**, Duke University

- 9:30-10:15 **Vishesh Karwa**, Harvard University
“Causal Inference in Transportation Safety Studies: Comparison of Potential Outcomes and Causal Diagrams”
- 10:15-11:00 **Eun Sug Park**, Texas A&M University
“Bayesian Analysis of Multivariate Crash Counts Using Copulas”
- 11:00-11:30 Break
- 11:30-12:15 **Eric Laber**, North Carolina State University
“Efficient Planning in Large Spatio-temporal Decision Problems”
- 12:15-1:30 Lunch
- 1:30-2:15 **Carol Flannagan**, University of Michigan
“Evaluating Safety in Self-driving Cars: data and analytical challenges”
- 2:15-3:00 **Erik Schlicht**, Computational Cognition Group, C2-g (Remote)
“Using Multifidelity Methods to Estimate the Risk Associated with Transportation Systems”
- 3:00-3:30 Break
- 3:30-4:15 **Anjishnu Banerjee**, Medical College of Wisconsin
“Injury Risk Curves from Impact Biomechanical Experiments for Risk Analysis in Motor Vehicle Crashes”
- 4:15-5:00 **Jiguang Zhao**, CH2M Hill
“Application of Bootstrap for Transportation Safety Study”
- 5:00-6:30 Reception and Poster Competition
- 6:30 Shuttle to Hotel

Wednesday, August 16, 2017

Information Initiative @ Duke (iiD)

West Campus, Duke University

Chair: **Matt Heaton**, Brigham Young University

- 9:30-10:15 **Chou-Lin Chen**, National Highway Traffic Safety Administration
“Statistical and Data Issues for Automatic Driving Safety Analysis and Research”

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| 10:15-11:00 | Galen Reeves , Duke University <i>"Modeling the Impact of Driverless Cars on Traffic and Parking"</i> |
| 11:00-11:30 | Break |
| 11:30-12:15 | Victoria Nneji , Duke University <i>"What about the Driver in Driverless Cars?"</i> |
| 12:15-1:30 | Lunch |
| 1:30-2:15 | Sharon-Lise Normand , Harvard University <i>"Improving Motor Carrier Safety Measurement"</i> |
| 2:15-3:00 | James Rosenberger , Pennsylvania State University <i>"Measurement Effects of Aging on Physical Properties of Pressurized Aging Vessel Residue"</i> |
| 3:00-3:30 | Break |
| 3:30-4:15 | Mike Porter , University of Alabama <i>"Understanding and Evaluating Predictive Crash Models"</i> |
| 4:15-5:30 | Moderated Discussion and Establishment of Working Groups |
| 5:30 | Shuttle to Hotel |

Thursday, August 17, 2017

Information Initiative @ Duke (iiD)

West Campus, Duke University

Chair: **Nalini Ravishanker**, University of Connecticut

9:30-5:30 Working Groups Meet

5:30 Shuttle to Hotel

Friday, August 18, 2017

Information Initiative @ Duke (iiD)

West Campus, Duke University

Chair: **Feng Guo**, Virginia Tech

9:30-12:00 Working Groups Report

12:00 Adjourn and Shuttle to RDU Airport