

### Transportation Infrastructure Resilience to Extreme Weather Events



Wednesday September 19<sup>th</sup>, 2018 | 1:00 – 2:30 PM (EST)



**Free registration at:** <https://bit.ly/2QssEcz>



**Information at:** <http://transet.lsu.edu/webinars/>

#### Forecasting Flood Impacts to Transportation Infrastructure

This presentation covers a variety of topics, including current research at Stevens Institute of Technology on the impacts of sea storms due to climate change, real-time forecasting of flooding, as well as living shorelines.



**Dr. Jon Miller**  
Stevens Institute of Technology



**Dr. Adolfo Matamoros**  
University of Texas at San Antonio

#### Coastal Bridges under Hurricane Stresses along the Texas and Louisiana Coast

This study develops a high-resolution model capable of simulating the response of bridge structures to hydrodynamic loads for hurricane design conditions (i.e., surge height, wave height, and frequency) expected in the Texas-Louisiana coast. The model is calibrated using historical data from past hurricanes and used to evaluate the vulnerability of bridge structures on the Texas-Louisiana Coast.

#### I-70 Risk and Resiliency Pilot – Planning Ahead for a Stronger System

The I-70 Risk and Resiliency Pilot (completed in early 2018) is a first-of-its kind approach, one meant to address vulnerabilities in Colorado’s highway before they become a concern. 450 miles of I-70 from the Utah border to the Kansas border have been analyzed for the potential of future damage and closures from physical threats. It provides a quantitative, data-driven approach to quantifying risk and calculating benefit cost of alternative mitigation measures.

**Dr. Oana Ford**  
Colorado DOT

**Ms. Lizzie Kemp Herrera**  
Colorado DOT



**Mr. Robert Kafalenos**  
FHWA

#### FHWA Approaches for Addressing Resilience to Extreme Weather Events

This presentation focuses on the work of FHWA and its partners to address resilience to current and future extreme weather events at the project and planning scales, as well as through transportation asset management.

