



**Summer Program on Transportation Statistics
August 14-18, 2017**

Lecture: *Application of Bootstrap for Transportation Safety Study*

Speaker: Jiguang Zhao

Abstract:

The highway safety professionals always face the challenge of analyzing the safety performance of roadway facilities with limited samples, especially when evaluating the safety performance of innovative roadway design and traffic management techniques. In the past several decades, researchers have utilized different statistical methods to draw meaningful conclusions from limited samples, including bootstrap. This presentation is to review the current status of bootstrap method and its application on highway safety study, the advantages and disadvantages of the method, and possible improvements to widen its application on highway safety studies.