

RUTGERS UNIVERSITY
DEPARTMENT OF STATISTICS AND BIostatISTICS
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Seminar

Speaker: **Professor Lu Tian**
Department of Statistics
Stanford University

Title: **Exact inference on the restricted mean survival time**

Time: **3:20 – 4:20pm, Wednesday, October 7, 2015**

Place: **552 Hill Center**

Abstract

In a randomized clinical trial with the time to event as the primary endpoint, one often evaluates the treatment effect by comparing the survival distributions from two groups. This can be achieved by for example estimating the hazard ratio under the popular proportional hazards (PH) model. However, when the hazard rate is very low, e.g., in safety studies, there may be too few observed events to warrant the valid asymptotical inferences under the PH regression. The exact inference including hypothesis testing and constructing 95% confidence interval for the treatment effect is desired. In this paper, we have developed exact inference procedure for estimating the treatment effect based on the difference in restricted mean survival time between two arms, which is more appealing than hazard ratio in many applications. The proposed procedure is valid regardless of the number of events. We have also performed a simulation study to examine the finite sample performance of the proposed method.

**** Refreshments will be served @2:50pm in Room 502 Hill Center ***