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INSTITUTE OF  
STATISTICAL SCIENCE



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## Seminar

Title : Distributed privacy-preserving estimation of time-to-event models

Speaker : Dr. Chao-Kang Jason Liang

( Biostatistics Research Branch, Division of Clinical Research, National Institute of Allergy and Infectious Diseases)

Time : 16:30 ~ 17:30, Monday, August 14, 2023

Place : Auditorium, B1F, Institute of Statistical Science

## Abstract

Classical statistical methods have traditionally been used in settings where data storage and computational resources are in the same location. However, as both data storage and computational resources become increasingly distributed, the need to adapt statistical methods to these settings arises. Many such adaptations have been developed. However, in the biomedical space - for example, when trying to combine and analyze data from many different electronic health records - the need to both preserve individual privacy and minimize iterative communication between data sites makes such adaptations impractical to implement. Jordan, Lee, and Yang (JASA 2018) proposed a surrogate likelihood framework that addresses the additional needs of privacy and communication-efficiency. We propose further extensions of the surrogate likelihood framework to allow for time-to-event models to be used in distributed settings while preserving privacy and minimizing communication.

※ Online live streaming through Cisco Webex will be available.