

数学与系统科学研究院

计算数学所学术报告

报告人: **Prof. Hulin Wu**

(Department of Biostatistics and Computational Biology

University of Rochester School of Medicine and Dentistry)

报告题目:

**Computerized Data-Driven Medicine
in the Big Data Era**

邀请人: 袁亚湘 院士

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311 报告厅

Abstract:

In the Big Data era, a new concept of precision medicine is proposed to collect the genomics, genetics, biomarkers, clinical phenotype, environmental and behavioral data from a large cohort with a million subjects. It is expected that the huge amount and variety of these data can be integrated to provide personalized diagnosis and treatment for various diseases so that the traditional medical practice can be revolutionized. The life-span and quality of life of world population can be greatly increased. However, the difficulties for achieving this goal include how to optimize the design of experiments and data collection, how to analyze and integrate the Big Data for clinical practice, and how to appropriately computerize the data and results for clinical decision-making. In this talk, I will discuss the challenging issues in experimental design and biomedical Big Data integration that require interplays between biomedical investigators and quantitative/computational scientists. In particular, the extra-high-dimensional data modeling and model optimization will be discussed.

欢迎大家参加！