



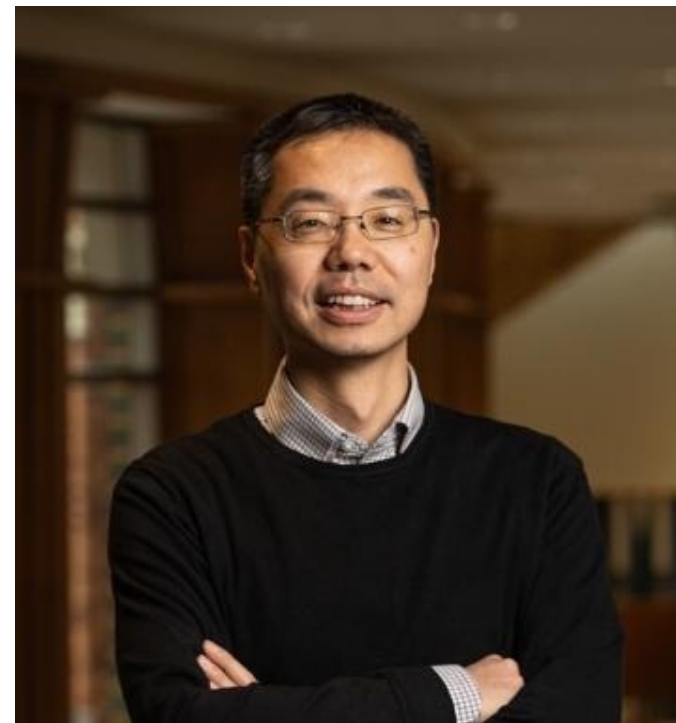
Colloquium

MONDAY, NOVEMBER 3RD, 2025

3:30 PM -4:30 PM | 2048 CB

**A NEW ALGORITHM FOR RISK
STRATIFICATION BASED ON
PARTIALLY ORDERED RISK FACTORS**

Speaker: Menggang Yu, PhD



Dr. Menggang Yu is a Professor at the Department of Biostatistics at the UM School of Public Health. He acts as the Director of the Cancer Data Science Shared Resource at the UM Rogel Cancer Center. An elected fellow of the American Statistical Association (ASA). His methodological research interests include clinical trial design and analysis, observational study and real world evidence, and precision medicine. Dr. Yu previously served as a Professor in the Department of Biostatistics and Medical Informatics at the University of Wisconsin–Madison, where he worked extensively with clinical and public health investigators across diverse domains including cancer prevention and care, diabetes and chronic disease management, health behavior, health care delivery, and broader health system improvement initiatives.

Abstract

This talk consists two parts. Part 1 introduces a new algorithm entitled ‘Ordering Poset Elements by Recursive Amalgamation’ (OPERA) for patient stratification using many risk factors. Health risk factors frequently exhibit total or partial ordering and when considered jointly, they form a partially ordered set or a poset. Risk stratification is an invaluable tool for modern healthcare systems. By separating patients into subgroups with distinct disease severity and prognosis, it allows better clinical decision making due to targeted care thus ultimately fosters healthier patient populations. In addition, it enhances communication, engagement, and research focus. Part 2 introduces graduate programs in the Department of Biostatistics, School of Public Health, at the University of Michigan - Ann Arbor.

Refreshments will be provided!