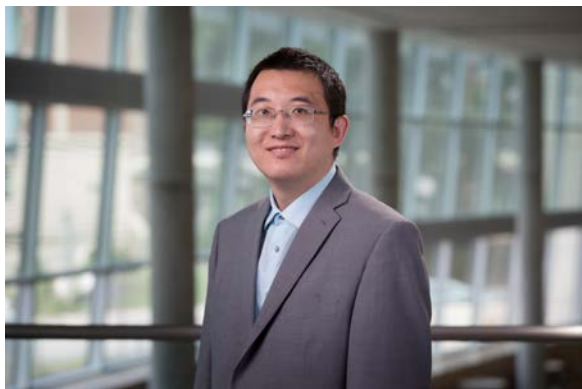# SEMINAR SERIES

Supported by The Department of Biomechanics and
The Center for Research in Human Movement Variability (MOVCENTR)



## CAUSAL INFERENCE IN THE PRESENCE OF POST-RANDOMIZATION VARIABLES

### Featuring Dr. Cheng Zheng

University of Nebraska Medical Center

November 13, 2020 | 12:00 - 1:00 pm

Zoom Link:

https://unomaha.zoom.us/j/92880503680

## ABOUT DR. ZHENG

Dr. Zheng is an Associate Professor in Biostatistics at the University of Nebraska Medical Center. He obtained the Ph.D. degree in biostatistics at the University of Washington advised by Dr. Ross Prentice. His research focuses on developing novel statistical methods in causal inference and measurement error modeling for complex data such as longitudinal, survival and big data. He has applied research in multiple biomedical areas involving the usage of high-dimensional data such as accelerometer-based physical activity data, air pollution data over time, radiomics data, and metabolomics data.

## LEARNING OBJECTIVES

This talk will cover (1) an overview of definition of different causal effects of interest when there is post-randomization variables; (2) the estimation of the causal effects under various assumptions illustrated by real examples; and (3) how to incorporate big data to improve efficiency of the proposed causal inference methods.

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