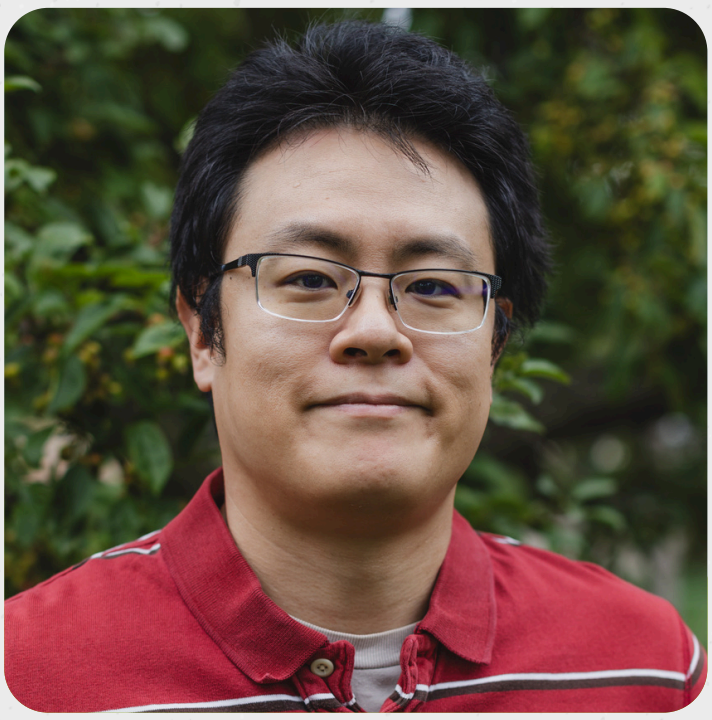
DEARBORN | MATHEMATICS & STATISTICS
UNIVERSITY OF MICHIGAN-DEARBORN

Colloquium



WEDNESDAY, JUNE 3, 2026

3:00-4:30 PM | 2048 CB

THE SEMI-DISCRETE OPTIMAL TRANSPORT PROBLEM AND SOME NUMERICAL APPROACHES

Speaker: Jun Kitagawa

Bio

Prof. Jun Kitagawa is a mathematician at Michigan State University, in the Department of Mathematics. His research is primarily in analysis and partial differential equations.

Abstract

The optimal transport problem at its simplest asks: how can I move a pile of stuff to another location, in the most efficient way possible? The semi-discrete problem is when the goal is to move the stuff to a finite number of locations, but starting from a continuum of starting locations, imagine a farmer grows crops over a large field, and wants to gather their harvest to a few silos on their property. I will discuss some basic setup for this problem, and a numerical approach to approximating solutions via a damped Newton algorithm. Time-permitting, I will also discuss a variant which involves so-called storage fees. This talk is based on joint work with B. Thibert and Q. Mérigot, and M. Bansil.

Refreshments will be provided!