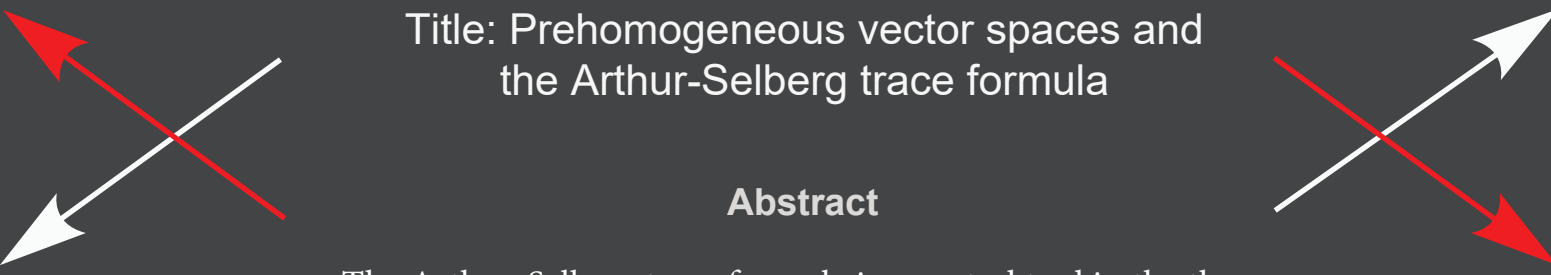


# COLLOQUIUM

MATH SIUC

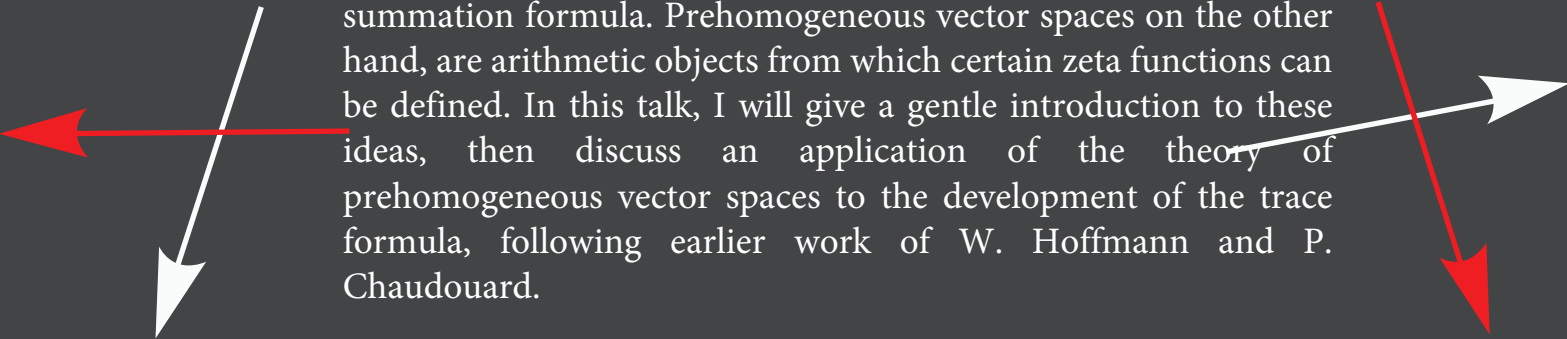
A central cluster of six arrows, three white and three red, pointing outwards in various directions.

**Tian An Wong**  
**Assistant Professor,**  
**University of Michigan-Dearborn**

A pair of white and red arrows crossing each other, one pointing up-left and the other down-right.

Title: Prehomogeneous vector spaces and  
the Arthur-Selberg trace formula

## Abstract

A pair of white and red arrows crossing each other, one pointing down-left and the other up-right.

The Arthur-Selberg trace formula is a central tool in the theory of automorphic forms, and can be viewed as a nonabelian Poisson summation formula. Prehomogeneous vector spaces on the other hand, are arithmetic objects from which certain zeta functions can be defined. In this talk, I will give a gentle introduction to these ideas, then discuss an application of the theory of prehomogeneous vector spaces to the development of the trace formula, following earlier work of W. Hoffmann and P. Chaudouard.

# 10.14.21

Time: 3:00PM  
Date: October 14,  
2021 Via Zoom

Link to be emailed  
separately.