

# ***ALGEBRAIC GEOMETRY AND COMMUTATIVE ALGEBRA SEMINAR***

**Speaker: Aron Heleodoro**  
**University of Illinois Urbana-Champaign**



**Date:** Thursday, May 6, 2021

**Time:** 3:00 PM

**Location:** Zoom

**Zoom URL:** [notredame.zoom.us/j/97739336655?  
pwd=QmUxd3V2Rndyd0VFNlc0RFBxK0xPQT09](https://notredame.zoom.us/j/97739336655?pwd=QmUxd3V2Rndyd0VFNlc0RFBxK0xPQT09)

**Lecture Title:**  
**Applications of higher determinant maps**

**Abstract**

In this talk I will sketch the construction of a determinant map for Tate objects and show two of its possible applications. The first is to construct central extensions of iterated loop groups and the second is to recover the notion of "determinantal" theory on reasonable ind-schemes. For the second application we will need a detour in the theory of Tate-coherent sheaves.