Advancement to Candidacy

Thomas Grubb
UCSD

An $FS^{op}$ structure on Fulton-MacPherson Compactifications

Abstract:

We will start by giving a brief introduction to representation stability and combinatorial categories. Then we will introduce Fulton and MacPherson’s “wonderful compactifications” of configuration spaces, and describe how they may be studied through the lens of representation stability. In particular, we show that under a mild hypothesis we can approach the representation theory of these spaces using the combinatorial category $FS^{op}$. We end by discussing an attempt at showing that these spaces do exhibit representation stability, although to date the results of this approach have been fairly underwhelming. This talk can be accessed at https://ucsd.zoom.us/j/309940113.

Advisor: Kiran Kedlaya

Monday, March 30, 2020
3:00 PM
https://ucsd.zoom.us/j/309940113