

Algebra and Geometry Seminar

Speaker: Thái Thành Nguyễn (McMaster University)

Title: Duality for Asymptotic Invariants.

Abstract: In this talk we present a duality for sequences of numbers which interchanges superadditive and subadditive sequences, and inverts their asymptotic growths. We discuss at least two algebro-geometric contexts where this duality shows up: how it interchanges the sequence of initial degrees of symbolic powers of an ideal of points with the sequence of regularities of a family of ideals generated by powers of linear forms, and how it underpins the reciprocity between the Seshadri constant and the asymptotic regularity of a finite set of points. Other examples may be given if time permits. This is joint work with Michael DiPasquale and Alexandra Seceleanu.