



FUDAN-SCMS ALGEBRAIC GEOMETRY SEMINAR

ZOOM MEETING SEMINAR

LECTURE :

CHERN DEGREE FUNCTIONS

Speaker: Martí Lahoz (Universitat de Barcelona)

Time: Jul 8, Beijing 16:00-17:00 (UTC 8:00-9:00)

Zoom Meeting Id: 830 305 3077

Password: 121323

Abstract: An Given a smooth polarized surface, I will present the “Chern degree functions” associated to an object of its bounded derived category of coherent sheaves. In the case of irregular surfaces, these functions encode information about the behavior of the object along the boundary of the geometric Bridgeland stability manifold. And, in particular for abelian surfaces, they coincide with the cohomological rank functions introduced by Zhi Jiang and Giuseppe Pareschi.

In general, I will discuss their extension as continuous real functions and a characterization of their non-differentiability at rational points. This is joint work with Andrés Rojas.

In the final part, if time permits, I will also present some applications obtained by Andrés Rojas to bound the basepoint free threshold for very general polarized abelian surfaces.