Department of Mathematics University of Notre Dame

ALGEBRAIC GEOMETRY AND COMMUTATIVE ALGEBRA SEMINAR

Speaker: Ethan Reed University of Notre Dame

Date: Thursday, October 12, 2023 Time: 3:30 PM Location: 258 Hurley Bldg Zoom URL: NA



Lecture Title: An Isomorphism Theorem of Arithmetic Complexes

Abstract

We consider generalizations of certain arithmetic complexes appearing in work of Raicu and VandeBogert in connection with the study of stable sheaf cohomology on flag varieties. Defined over the ring of integer valued polynomials, we prove an isomorphism of these complexes as conjectured by Gao, Raicu, and VandeBogert. In particular, this gives a more conceptual proof of an identification between the stable sheaf cohomology of hook and two column partition Schur functors applied to the cotangent sheaf of projective space. This talk is based on joint work with Luca Fiorindo, Shahriyar Roshan-Zamir, and Hongmiao Yu.