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ALGEBRAIC GEOMETRY AND COMMUTATIVE ALGEBRA SEMINAR

Speaker: Izzet Coskun
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Date: Wednesday, November 28, 2018
Time: 3:00 PM
Location: 258 Hurley Hall

Lecture Title:
Brill-Noether Theorems for sheaves on surfaces

Abstract
I will discuss joint work with Jack Huizenga on the cohomology of the general stable sheaf on a rational surface. We determine the cohomology of the general stable sheaf on Hirzebruch surfaces. As a consequence, we classify the Chern characters for which the general stable sheaf is globally generated. These theorems have many applications. For example, we prove sharp Bogomolov inequalities on Hirzebruch surfaces for any polarization and obtain a classification of stable Chern characters. If time permits, I will describe analogous results with Howard Nuer and Kota Yoshioka on the cohomology of the general stable sheaf on K3 surfaces.