Queen's Algebraic Geometry — Seminar —

DUALITY IN BOIJ-SÖDERBERG THEORY

DANIEL ERMAN University of Michigan

Abstract

The central idea in Boij-Söderberg Theory is that there is a connection between free resolutions over the polynomial ring and sheaf cohomology on projective space. I'll provide motivation this connection with an example, looking at properties of the long exact sequence in sheaf cohomology from a new perspective. Then I'll describe the construction of a duality pairing that leads to precise duality results about Betti tables of free resolutions and cohomology tables of sheaves. This is joint work with David Eisenbud.

> Monday 23 January 2012 15:30 – 16:30 319 Jeffery Hall