

Northeastern University



Mathematics Department

Geometry, Physics, and Representation Theory Seminar

**Daniele Agostini**

Max Planck Institute

Thursday, February 28, **1:00-2:00 pm**, Lake Hall 509

## **Syzygies, secants and tautological bundles**

### **Abstract**

The syzygies of an algebraic variety are the relations amongst its equations in projective space. They often encode subtle geometric properties of this variety, such as the presence of special secant spaces. In my talk, I would like to present this relation, focusing on the case of smooth curves and surfaces, and explain a natural connection to the theory of tautological bundles on the Hilbert scheme of points.