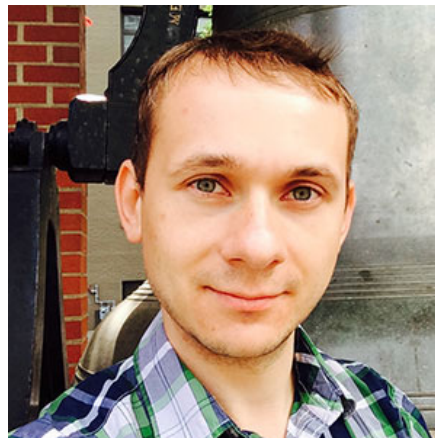


# ***ALGEBRAIC GEOMETRY AND COMMUTATIVE ALGEBRA SEMINAR***

**Speaker: Mihai Fulger**  
**University of Connecticut**



**Date:** Tuesday, November 22, 2022

**Time:** 2:30 PM

**Location:** 258 Hurley Hall

**Zoom URL:** NA

***Lecture Title:***

**Tangent cones of pluritheta divisors on abelian threefolds**

***Abstract***

The Riemann singularity theorem computes the multiplicity of points on theta divisors on Jacobians in terms of dimensions of linear series on the curve. It is also interesting to study singularities of pluritheta divisors. On Jacobians of genus 3 curves  $C$ , the multiplicity at the origin of the difference divisor  $C-C$  determines whether the curve is hyperelliptic or not. We compute the infinitesimal Newton-Okounkov body of the principal polarization on some abelian threefolds. In particular this recovers asymptotic information about the tangent cones at the origin of pluritheta divisors. This is joint work with Victor Lozovanu.