

# Topology, Algebraic Geometry, & Dynamics Seminar

Singularities of commutative rings via test ideals

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The test ideal originally came out of the study of tight closure in rings of characteristic  $p > 0$ , but has been a key tool in the study of singularities by both commutative algebraists and algebraic geometers. I will discuss the connections between the test ideal, the multiplier ideal, and the singularities of a commutative ring of a given characteristic, and describe a generalization of the test ideal by Felipe Pérez and myself that works uniformly for rings of all characteristics.

Date: **Friday, March 8, 2019**

Time: **2:30-3:20 pm**

Place: **4106 Exploratory Hall**

For special accommodations, please contact Sean Lawton via email at [slawton3@gmu.edu](mailto:slawton3@gmu.edu).