

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

**Speaker: Uwe Nagel**  
**University of Kentucky**



**Date:** Wednesday, February 8, 2023

**Time:** 3:00 PM

**Location:** 258 Hurley Hall

**Zoom URL:** NA

***Lecture Title:***

**Schemes arising from hypersurface arrangements**

***Abstract***

Let  $A$  be a hypersurface arrangement. We consider the Cohen-Macaulayness of two unmixed ideals that are related to the Jacobian ideal  $J$  of  $A$ : the intersection of height two primary components of  $J$  and the radical of  $J$ . In joint work with Migliore and Schenck we showed that in the case of a hyperplane arrangement these ideals are Cohen-Macaulay under a mild hypothesis. We discuss extensions for hypersurface arrangements obtained in joint work with Juan Migliore.