# *Algebraic Geometry and Commutative Algebra Seminar*

UNIVERSITY OF NOTRE DAME
Department of Mathematics

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Wednesday, September 30, 2015
3:00 PM
258 Hurley Hall

**Title:** The Strong Monodromy Conjecture for finite Coxeter arrangements

**Abstract:**

To a singularity of an algebraic hypersurface, one can associate an invariant called the Bernstein-Sato polynomial or the b-function. Although the b-function is important and interesting, it is usually difficult to compute. It is conjectured (Strong Monodromy Conjecture or SMC) that some roots of the b-function can be obtained from the poles of another singularity invariant, the topological zeta function. I will sketch the proof of the SMC for the case of finite Coxeter hyperplane arrangements, via the "n/d conjecture" of Budur, Mustaţă, and Teitler. I will also describe some results towards computing the b-function of these arrangements, focusing on a special case (the Vandermonde determinant). This is joint work with Robin Walters.