Algebraic Geometry and Commutative Algebra Seminar

UNIVERSITY OF NOTRE DAME
Department of Mathematics

Speaker: **Jeff Madsen**
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Wednesday, March 5 2014
3:00 pm
Room: 258 Hurley Hall

Title: Rees algebras of parameterized plane curves (cont.)

Abstract:
If C is a rational parameterized plane curve of degree d, the bihomogeneous coordinate ring of its graph is given by the Rees algebra of an almost complete intersection ideal in $k[x, y]$. The Rees algebra can be viewed as the quotient of the symmetric algebra by its torsion ideal A. Finding a minimal generating set of A is largely an open problem, though it has been solved, for instance, for $d \leq 6$ by the work of Busé and of Kustin, Polini, and Ulrich. I will present results that can be used to find all possible bidegrees of the minimal generators of A when $d = 7$, and show how these degrees correspond to the singularities of C.