

1116-13-2280 **Jeff Madsen*** (jmadsen@nd.edu), University of Notre Dame, 219 Hayes-Healy Center, Notre Dame, IN 46556-5641. *Equations of Rees algebras of ideals in two variables.*

Let $R = k[x_0, x_1]$ and let I be a grade 2 ideal in R generated by forms of the same degree. I will give a method for computing equations of the Rees algebra of I based on the presentation matrix of I , generalizing the method of Kustin, Polini, and Ulrich for almost linearly presented ideals. In general this does not compute all the equations of the Rees algebra, but only those of large degree. A refinement in the case of 3-generated ideals gives a connection between the equations of lower degree and the singularities of the curve parametrized by I . (Received September 22, 2015)