

1030-14-379

Jonathan D Hauenstein* (jhauenst@nd.edu), 295 Hurley, Dept of Mathematics, Notre Dame, IN 46556. *Regeneration, adaptive multiprecision and Bertini.*

Recent work on regeneration, a new equation-by-equation method developed with A. Sommese and C. Wampler, and an enhanced adaptive multiprecision algorithm developed with D. Bates, A. Sommese and C. Wampler will be presented. Along with the algorithms, information about using them in Bertini, software for numerical algebraic geometry computations developed by Bates, Hauenstein, Sommese and Wampler, will be discussed. (Received August 07, 2007)