

1096-65-1015

Jonathan D Hauenstein* (hauenstein@ncsu.edu), 3152 SAS Hall, Box 8205, NC State University, Raleigh, NC 27695-8205, and **Alessandra Bernardi** and **Noah S Daleo**. *Homotopy continuation and signal decomposition*. Preliminary report.

One can model an observed input signal as the sum of various incoming signals together with noise. By having each incoming signal be a rank one tensor, the observed input is a numerical approximation of a sum of rank one tensors. In this talk, we describe using numerical algebraic geometric techniques based on homotopy continuation to attempt to recover the individual rank one tensors from the observed signal. (Received September 12, 2013)