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A. K. Wheeler* (wheeles@umich.edu). *Ideals Generated by Principal Minors.*

Let K be an algebraically closed field. We study the algebraic sets defined by the vanishing of the size t principal minors of a size n square matrix of indeterminates, and the varieties which are irreducible components of these algebraic sets. In the case where $t = 2$ these are normal complete intersections with coordinate ring isomorphic to a semigroup ring. The general behavior is much more complicated. We give bounds on the height of the defining ideal and show, for example, that for $n \geq 4$ and $t = n - 1$ there are two components, one of codimension 4 and the other of codimension n . Thus, when $n = 5$ and $t = 4$, the algebraic set is not a complete intersection. (Received September 16, 2013)