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Ashley K. Wheeler* (ashleykw@uark.edu), Department of Mathematical Sciences, University of Arkansas, Fayetteville, AR 72701. *Ideals Generated by Principal Minors*. Preliminary report.

A minor of a square matrix is *principal* means its column and row indices are the same. Given a polynomial ring in the entries of a generic square matrix X , over a field, we study the ideals \mathfrak{P}_t generated by principal minors of a fixed size t . For any size generic matrix, \mathfrak{P}_2 is prime and defines a normal complete intersection with rational singularities (in characteristic $p \neq 0$). If X is size $n \geq 4$, then the ideals \mathfrak{P}_{n-1} have two minimal primes; when $n = 4$, \mathfrak{P}_{n-1} is reduced and both minimal primes have height 4. (Received August 24, 2015)