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Elizabeth Gross* (egross7@uic.edu), Department of Mathematics, 322 Science and Engineering Offices (M/C 249), 851 S. Morgan Street, Chicago, IL 60607-7045, and **Sonja Petrovic**. *Toric Ideals of Hypergraphs*.

Associated to any hypergraph is a toric ideal encoding the algebraic relations among its edges. We study these ideals and the combinatorics of their minimal generators. We give general degree bounds for the generators for both uniform and non-uniform hypergraphs. As an application, we show that the defining ideal of the tangential variety in cumulant coordinates is generated by quadratics and cubics. This is joint work with Sonja Petrovic. (Received July 24, 2012)