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Florian Kohl, McCabe Olsen* (olsen.149@osu.edu) and **Raman Sanyal**. *Unconditional Reflexive Polytopes*.

A convex body is unconditional if it is symmetric with respect to reflections in all coordinate hyperplanes. In this paper, we investigate unconditional lattice polytopes with respect to geometric, combinatorial, and algebraic properties. In particular, we characterize unconditional reflexive polytopes in terms of perfect graphs. As a prime example, we study the signed Birkhoff polytope. Moreover, we derive constructions for Gale-dual pairs of polytopes and we explicitly describe Gröbner bases for unconditional reflexive polytopes coming from partially ordered sets. (Received September 09, 2019)