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Geir Agnarsson (geir@math.gmu.edu), Dept. of Math. Sciences, George Mason University, Fairfax, VA 22030, and **Walter Morris*** (wmorris@gmu.edu), Dept. of Math. Sciences, George Mason University, Fairfax, VA 22030. *Minkowski Sums of Simplices - Preliminary Report*. Preliminary report.

We study the combinatorics of the face lattice of the Minkowski sum of k simplices, each of which is generated by a subset of the set of standard basis vectors in R^r . We prove some results on the graphs of such polytopes and introduce a "master polytope," the faces of which generate all these polytopes. (Received March 07, 2006)