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Christin Bibby* (bibby@uoregon.edu). *Abelian Arrangements*.

An abelian arrangement is a finite set of codimension one abelian subvarieties in a complex abelian variety. We are interested in the topology of the complement of an arrangement. If the arrangement is unimodular, we provide a combinatorial presentation for a differential graded algebra that is a model for the complement, in the sense of rational homotopy theory. Moreover, this DGA has a bi-grading that allows us to compute the mixed Hodge numbers. If the arrangement is also supersolvable, then this model is a Koszul algebra. In this case, studying its quadratic dual gives a combinatorial description of the \mathbb{Q} -nilpotent completion of the fundamental group and the minimal model of the complement of the arrangement. (Received September 15, 2014)