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Title: Right-angled Artin groups and monomial ideals.

A combinatorial construction originating in work of Davis and Januszkiewicz gives a variety of interesting topological spaces: these include classifying spaces for certain Coxeter and Artin groups, complements of coordinate subspace arrangements, and also the moment-angle complexes of Buchstaber and Panov.

The cohomology of such spaces can often be seen in terms of combinatorial commutative algebra. I will give some examples. In particular, resolutions of monomial ideals over exterior algebras describe cohomology of certain subgroups of right-angled Artin groups. In particular, this gives additional information about the homological finiteness properties of such subgroups.