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**Art M Duval, Caroline J Klivans and Jeremy L Martin\*** (jmartin@math.ku.edu). *The cocritical group of a cell complex.*

The cocritical group of a cell complex  $X$  is defined dually to its critical group. Like the critical group, the cocritical group can be interpreted as a torsion-weighted enumerator of cellular spanning trees, but by cohomology instead of homology. Roughly speaking, torsion in a cell complex tends to complicate its critical group while simplifying its cocritical group. When  $X$  is torsion-free (for example, when it is a graph), the two groups are naturally isomorphic; however, in some cases, such as cellular manifolds, the cocritical group is considerably easier to calculate than the critical group. (Received August 27, 2013)