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Nantel Bergeron* (bergeron@yorku.ca), Dept. Math and Stat., York University, 4700 Keele St, Toronto, Ontario M3J 1P3, Canada, and **Cesar Ceballos**. *Hopf algebra on c -clusters*.

The Hopf algebra of subword complexes induces a natural sub-Hopf algebra on c -clusters of finite type. Cluster complexes for Weyl groups were introduced by Fomin and Zelevinsky. These complexes encode the combinatorial structure behind the associated cluster algebra of finite type, and were further extended to arbitrary Coxeter groups by Reading. The resulting c -cluster complexes use a Coxeter element c as a parameter and have been extensively used to produce geometric constructions of generalized associahedra. The basis elements of our Hopf algebra of c -clusters are given by disjoint unions of pairs of clusters (A, T) of finite type, where A is any acyclic cluster seed and T is any cluster obtained from it by mutations. The multiplication and comultiplication operations are natural from the cluster algebra perspective on T . However, subword complexes allow to nontrivially extend these operations to remarkable operations on the acyclic seed part A . (Received August 04, 2015)