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Tom Boothby and **Jeffrey Burkert*** (jeffrey.burkert@gmail.com), Harvey Mudd College, 340 E. Foothill Blvd, Claremont, CA 91711, and **Morgan Eichwald**, **Dana C. Ernst**, **Richard M. Green** and **Matthew Macauley**. *On the enumeration of the cyclically fully commutative elements in Coxeter groups.*

Let W be a Coxeter group. We say that $w \in W$ is cyclically fully commutative (CFC) if every cyclic shift of every reduced expression for w is fully commutative (in the sense of Stembridge). This definition is motivated by the conjugacy problem, because a cyclic shift of $w \in W$ is simply conjugation by the initial generator. In this talk, we characterize the CFC elements in the Coxeter groups containing finitely many fully commutative elements, and enumerate them via a recurrence relation. In Type A , the CFC elements are precisely the permutations that avoid the patterns 321 and 3412, which are counted by the odd Fibonacci numbers. (Received September 22, 2009)