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Joseph Cormier* (jncormier@plymouth.edu), Dana C. Ernst (dcernst@plymouth.edu), Zachariah Goldenberg (zngoldenberg@plymouth.edu), Jessica Kelly (jnkelly@plymouth.edu) and Christopher Malbon (clmalbon@plymouth.edu). Classification of the T-avoiding permutations and generalizations to other Coxeter groups.

We say that a permutation w has property T if there exists i such that either w(i) > w(i + 1), w(i + 2) or w(i + 2) < w(i), w(i + 1). A permutation w is T-avoiding if neither w or w^{-1} have property T. In this talk, we will classify the T-avoiding permutations, as well as discuss their connection to 321- and 3412-avoiding permutations and cyclically fully commutative elements of Coxeter groups of type A. Our result is a reformulation of previous results, but with a simpler proof. In addition, we will discuss possible generalizations to other Coxeter groups. (Received February 14, 2011)