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Dana C. Ernst* (dana.ernst@nau.edu). *Architecture of braid classes in Coxeter systems.*

Any two reduced expressions for the same Coxeter group element are related by a sequence of commutations and so-called braid moves. We say that two reduced expressions are braid equivalent if they are related via a sequence of braid moves, and the corresponding equivalence classes are called braid classes. Each braid class can be encoded in terms of a braid graph, where each vertex is an element of the braid class and two vertices are connected by an edge whenever the corresponding reduced expressions are related via a single braid move. In this talk, we will discuss the structure of braid graphs for several families of Coxeter systems, including types A , B , and D . (Received September 12, 2019)