

**October 1:** David Vogan (MIT), “Carter’s classification of conjugacy classes in Weyl groups and Minchenko’s diagrams.”

The conjugacy classes and irreducible characters of Weyl groups (and indeed of all finite Coxeter groups) have been known by case-by-case calculation since the 1950s. About forty years ago, Roger Carter found a description of the answer that came closer to being “uniform” across all cases. In particular, he proved that every element of a Weyl group is either trivial (that is, belongs to a Coxeter subgroup with zero generators) or a reflection (that is, belongs to a Coxeter subgroup with one generator), or is equal to the generator of order  $n$  in a dihedral subgroup of order  $2n$  (that is, belongs to a Coxeter subgroup with two generators).

Carter’s detailed description of the answer uses some of the diagrams discussed by Minchenko in his talk September 17. I’ll explain the connection, and talk about the possibility of improving Carter’s results a little bit.