1171-05-6 Bruce E Sagan* (sagan@math.msu.edu), Department of Mathematics, Michigan State University, East Lansing, MI 48824, Robin Sulzgruber, Department of Mathematics and Statistics, York University, York, ON M3J 1P3, Canada, and Joshua Swanson, Department of Mathematics, University of California, San Diego, La Jolla, CA 92093. Stirling numbers for complex reflection groups. Preliminary report.

Let G be a finite, irreducible complex reflection group. We propose defining Stirling numbers of the first and second kind for G as the Whitney numbers of the first and second kind for the intersection lattice L(G). The ordinary Stirling numbers are recovered in type A. We show that often these Stirling numbers can be expressed in terms of elementary and homogeneous symmetric functions. When G is a Coxeter group, we also investigate ordered Stirling analogues obtained by relating L(G) and G's Coxeter complex. Various statistics on L(G) yield q-analogues of unordered and ordered Stirling numbers of the second kind, one of which has appeared in a recent super covariant conjecture of Zabrocki. (Received July 01, 2021)