

1096-05-1447 **Irving Dai*** (ifdai@college.harvard.edu), 64 Linnaean St., 237 Currier Mail Center,
Cambridge, MA 02138. *Properties of Full-Flag Johnson Graphs.*

We study a variant of the family of Johnson graphs, the Full-Flag Johnson graphs. We show that Full-Flag Johnson graphs are Cayley graphs on S_n generated by certain classes of permutations, and that they are in fact generalizations of permutahedra. We derive some results about the adjacency matrices of Full-Flag Johnson graphs and apply these to the set of permutahedra to deduce part of their spectra. (Received September 15, 2013)