Federico Castillo* (fcastillo@ku.edu), 405 Snow Hall, 1460 Jayhawk Blvd., Lawrence, KS 66045, and Federico Ardila, Chris Eur and Alexander Postnikov. *Deformations of Coxeter permutahedra and Coxeter submodular functions.*

We compute the cone of deformations of a Coxeter permutahedron. This family contains polyhedral models for the Coxeter-theoretic analogs of compositions, graphs, matroids, posets, and associahedra. Our description extends the known correspondence between generalized permutahedra and submodular functions to any finite reflection group. (Received February 04, 2019)