Peter E Trapa* (ptrapa@math.utah.edu), Department of Mathematics, University of Utah, Salt Lake City, UT 84112-0090. Applications of Lusztig-Vogan Polynomials.

In the setting of a symmetric subgroup acting on a flag variety, Lusztig and Vogan have recently introduced a new family of polynomials which compute traces of certain involutions on relevant local intersection homology groups. (When the involution is trivial, the trace is the dimension, and the new polynomials reduce to the classical Kazhdan-Lusztig-Vogan polynomials.) I will explain applications of the new polynomials to the study of unitary representations of reductive Lie groups (part of joint work with Adams, van Leeuwen, and Vogan). (Received February 17, 2013)