1145-20-849 Luise-Charlotte Kappe* (menger@math.binghamton.edu) and Elizabeth Wilcox. A generalization of the Chermak-Delgado lattice to words in two variables.

The Chermak-Delgado measure of a subgroup H of a finite group G is defined as the product of the order of H with the order of the centralizer of H in G, $|H||C_G(H)|$, and the set of all subgroups with maximal Chermak-Delgado measure forms a dual sublattice of the subgroup lattice of G. In this talk we step back from centralizers and consider four types of centralizer-like subgroups, defined using general words in the alphabet $\{x, y, x^{-1}, y^{-1}\}$ instead of the specific commutator word. We show that this generalization results in four sublattices of the subgroup lattice of a finite group, some of which may be equal to one another depending on the word. We consider which properties of the Chermak-Delgado lattice generalize to the new lattices, and which properties are specialized in the Chermak-Delgado lattice. (Received September 16, 2018)