Lucas Gagnon* (lucas.gagnon@colorado.edu). *Supercharacter theories, normal subgroups, and Galois connections.*

It is believed that many groups have a large number of supercharacter theories, but there are relatively few known constructions which produce a supercharacter theory for any given group. We will describe a new method for constructing supercharacter theories of any finite group, which has non-trivial results when the given group has many normal subgroups. In the construction a supercharacter theory is specified by a lattice of normal subgroups and some (super)character theoretic data for certain sections (subquotients) in this lattice, and the output is either a set of supercharacters or superclasses. When the lattice sections arise from a Galois connection it is easy to describe both the supercharacters and superclasses. We also give a straightforward way to compare the result of our construction with other supercharacter theories. (Received August 10, 2020)