Supercharacter theories have given us new ways to tailor the representations of our favorite groups to specific applications. My current favorite such application is recovering combinatorial Hopf structures via the representation theory of a tower of groups. This talk describes joint work with Aliniaeifard on a program to use a supercharacter theory of his (constructed from a lattice of normal subgroups) to not only realize combinatorial Hopf algebras but to begin finding algebraic explanations for how they are related. (Received August 11, 2020)