

1154-20-1031      **Farid AliniaEIFard\*** ([aliniaEIFard.farid@gmail.com](mailto:aliniaEIFard.farid@gmail.com)), 2106-1651 Hardwood Street, Vancouver, BC V6G 1Y2, Canada. *Representation theory and combinatorial Hopf structures*. Preliminary report.

The concept of Hopf algebras originated from the theory of algebraic groups and algebraic topology in the mid 20th century. Hopf structures have numerous applications in many other mathematical branches, and now it is a familiar concept in representation theory as the class functions and superclass functions of some tower of groups have Hopf structures. In these Hopf structures, representation theoretic functors give the product and coproduct. In this talk, we give a brief introduction to normal lattice supercharacter theories, and then we construct a Hopf structure by using these supercharacter theories. (Received September 12, 2019)