1022-05-32   **Huilan Li*** (`lihuilan@mathstat.yorku.ca`), Department of Mathematics and Statistics, York University, 4700 Keele Street, Toronto, Ontario M3J 1P3, Canada. *Algebraic Structures on Grothendieck Groups of a Tower of Algebras.*

The Grothendieck group of the tower of symmetric group algebras has a self-dual graded Hopf algebra structure. In this work, we define the general notion of a tower of algebras and study the two Grothendieck groups on this tower. Moreover, we define a paring on them. Using representation theory, we prove that the two Grothendieck groups are graded Hopf algebras dual to each other. (Received September 01, 2006)