1116-05-1678 **Kai Fong Ernest Chong*** (kc343@cornell.edu), Agency for Science, Technology and Research (A*STAR), Singapore. *Face enumeration and Kruskal-Katona-type theorems.*

The Kruskal-Katona theorem (1960s) is a classic result in combinatorics that characterizes the f-vectors of simplicial complexes. In 1977, Stanley noticed that Macaulay's theorem (1927) characterizes the f-vectors of multicomplexes, or equivalently, the h-vectors of Cohen-Macaulay complexes. Later in 1988, Frankl-Füredi-Kalai found a colored analogue of the Kruskal-Katona theorem, thereby characterizing the f-vectors of colored simplicial complexes. The purpose of this talk is to reconcile these results using the algebraic notion of Macaulay-Lex rings. We will show that they are in fact three special cases of one main theorem. As a consequence, we completely determine all the possible types of generalized colored simplicial complexes and multicomplexes whose f-vectors can be characterized by "reverse-lexicographic" complexes. (Received September 21, 2015)