

1056-05-1961 **Benjamin J Young*** (byoung@math.mcgill.ca), Burnside Hall, Room 1005, 805 Sherbrooke Street West, Montreal, Quebec H3A 2K6, Canada. *Generating functions for box-counting problems.*

One way to compute generating functions for various types of 3D partition-like structures, including 3D Young diagrams (plane partitions) and “pyramid partitions”, is to use *vertex operators*. We will describe a broader class of “box-counting” problems which subsumes these two examples, and give the generating functions for each, using the vertex operator technique. (Received September 22, 2009)