1023-D1-1357 **Ji Li*** (liji@brandeis.edu), Department of Mathematics, Brandeis University, MS 050, Waltham, MA 02454-9110. *Counting Point-Determining Graphs Using Joyal's Theory of Species.*

Joyal's theory of species has proved to be powerful in many cases of combinatorial enumeration. Point-determining graphs are those in which any two distinct vertices have distinct neighborhoods. Co-point-determining graphs are those whose complements are point-determining. We derive a nice functional equation relating the species of point-determining graphs and the species of all graphs. We also draw a connection between the species of connected point-determining graphs and the species of connected co-point-determining graphs. We further develop a way of counting graphs that are both point-determining and co-point-determining. (Received September 25, 2006)