Meeting: 1001, Evanston, Illinois, SS 15A, Special Session on Mathematical Problems in Robotics

1001-57-402 **Aaron D. Abrams*** (abrams@math.uga.edu), MSRI, 17 Gauss Way, Berkeley, CA 94720. *Braid groups of graphs: some new results.* Preliminary report.

The n^{th} braid group associated to a space X is the fundamental group of the configuration space of n points in X. We will discuss some new results about the braid groups associated to a graph. These groups (and spaces) have applications to problems of motion planning on graphs, which arise in a variety of contexts in robotics. (Received August 31, 2004)