

1054-57-236

Emille Davie* (davie@math.ucsb.edu). *Detecting right-veering homeomorphisms of the once-punctured torus.*

We will define the Burau representation of the braid group, B_n , and discuss how to calculate Burau matrices. Viewing B_n as a group of isotopy classes of self-homeomorphisms of an n -times punctured disk D_n , I will give a simple way of determining the action of any braid on the generators of the fundamental group of D_n given its Burau matrix for $n = 3$. This action tells us if the braid is right-veering, left-veering, or neither. (Received September 15, 2009)