1025-20-219 Collin Bleak\* (bleak@math.cornell.edu) and Daniel Farley. Rotation numbers in the Higman-Thompson groups  $T_n$ .

We apply techniques discoverd by Brin and used by Salazar in the study of R. Thompson's group V to an analysis of elements in the Higman-Thompson groups  $T_n$ . These techniques support the creation of a short algorithm that directly computes the rotation numbers of elements of  $T_n$ , and which shows that all of these numbers are rational. We use our methods to further explore the relationship between Calegari's height invariant and the denominators of the rotation numbers of elements of  $T_n$ . (Received January 23, 2007)