

Abstract:Following Thurston, we study subgroups of the mapping class group generated by two positive multi-twists. We classify the configurations of curves for which the corresponding groups exhibit certain exceptional behaviors. We also identify a pseudo-Anosov automorphism whose dilatation is Lehmer's number, and show that this is minimal for the groups under consideration. Connections with Coxeter groups, billiards, and knot theory are also observed.