

Alessia Cattabriga (Università di Bologna)

Title: Extending homeomorphisms from punctured surfaces to handlebodies.

Abstract: Let H_g be a genus g handlebody and set $T_g = \partial H_g$. In this talk we deal with \mathcal{E}_{2n}^g , the subgroup of $\text{MCG}_{2n}(T_g)$ consisting of the isotopy classes of homeomorphisms of T_g which admit an extension to the handlebody keeping fixed the union of n disjoint properly embedded trivial arcs. The main motivation for studying this group is given by its connection with (g, n) -decompositions of knots and links in 3-manifolds.

In the first part of the talk we introduce the notion of (g, n) -decomposition and explain the role of \mathcal{E}_{2n}^g in this contest. Then we describe a finite set of generators for this group and, finally, we give a sketch of the proof.