

1023-57-1172

Jamie Bradley Jorgensen* (jorgen@rice.edu), Rice University, Mathematics Dept. MS 136, 6100 S. Main St., Houston, TX 77005-1892. *Surface homeomorphisms that do not extend to any handlebody*. Preliminary report.

If Σ is a closed surface of genus greater than one, examples have long been known of homeomorphisms that do not extend to any handlebody bounded by Σ . Such examples are also known to exist in the Torelli group of Σ . But how common are such examples? Where do they fit into Thurston's classification of surface homeomorphisms? And can such examples be found in smaller subgroups of the mapping class group? In this talk we discuss the history of these problems, recent results and ongoing research. (Received September 25, 2006)