

# Vanishing results in the homology of big mapping class groups and Thompson-like groups

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## Abstract.

Mapping class groups of infinite-type surfaces (a.k.a. “big mapping class groups”) have recently become the subject of intensive study. They come in a wild variety of forms and relatively little is currently known about their homology. I will talk about how homological stability techniques can be used to prove two different vanishing results for their homology. One is acyclicity (e.g. for the MCG of a disc minus a Cantor set) and the other is the non-existence of non-trivial homology classes supported on compact subsurfaces (e.g. for the MCG of the “Loch Ness monster surface”, although its homology is uncountably generated). I will also describe work in progress using similar techniques to study the homology of certain “Thompson-like” groups, extending previous work of Szymik and Wahl. This represents joint work with Xiaolei Wu.