

# Homology of big mapping class groups

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## Abstract.

Mapping class groups of infinite-type surfaces (“big mapping class groups”) have recently become the subject of intensive study, inspired by their connections with dynamical systems and geometric group theory. However, their homology above degree one has so far been very little understood. I will talk about recent joint work with Xiaolei Wu that computes the homology, in all degrees, of the mapping class groups of surfaces that are “self-similar” in a precise sense, such as the plane minus a Cantor set. A key ingredient of the proof is a homological stability result for big mapping class groups, which takes inspiration from the work of Szymik and Wahl on the Higman-Thompson groups.