
TYRONE GHASWALA, University of Waterloo
Mapping class groups admit a unique Polish topology

Suppose you are given a topological group. You may wonder about how much the group structure determines the topology. At first glance, the answer appears to be "not very much at all", since every topological group admits the discrete topology, and the trivial topology, both of which are compatible with the group operation.

Big mapping class groups (mapping class groups of infinite-type surfaces) come equipped with a Polish topology. We can ask a refinement of the above question: How much does the group structure of a mapping class group determine its Polish topology?

This talk is about showing the answer is, perhaps surprisingly, 'entirely'! That is, that mapping class groups admit a unique Polish topology. This is joint work with Sumun Iyer, Robbie Lyman, and Nick Vlamis.