

Characteristic quotients of surface groups and residual finiteness of mapping class groups

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It is a classical result of Grossman that mapping class groups of finite type surfaces are residually finite. In recent years, residual finiteness growth functions of groups have attracted much interest; these are functions that roughly measure the complexity of the finite quotients needed to separate particular group elements from the identity. Residual finiteness growth functions detect many subtle properties of groups, including linearity. In this talk, I will discuss some recent joint work with Thomas Koberda on residual finiteness growth for mapping class groups, adapted to nilpotent and solvable quotients of the underlying surface group.

(joint work with Thomas Koberda)