



复旦大学数学科学学院 数学综合报告会

报告题目: Taut polynomials from finite quotients of
fibered hyperbolic 3-manifold groups

报告人: 马彪 (同济大学)

时间: 2026-09-11 星期五 14:00-14:45

地点: 光华楼东主楼1801

报告摘要:

We prove that the finite quotients of a fibered hyperbolic 3-manifold group detect the taut polynomials of fibered faces of the Thurston norm balls, whenever the monodromy map is fully-punctured. To this end, we develop a general framework for the profinite invariance of twisted multivariable Alexander polynomials. As an application, we identify specific one-cusped hyperbolic 3-manifolds that are profinitely rigid among 3-manifold groups, by a strategy using normalized dilatations and the veering census; notably, the taut polynomials distinguish a pair of mapping tori sharing the fiber and the dilatation. This talk is based on joint work with Tamunonye Cheetham-West, Jun Ueki, and Youheng Yao.

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