

Geometric and Asymptotic Group Theory with Applications 2016

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Exotic quotients of surface groups

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Abstract:

I will explain how to use TQFT representations of mapping class groups to produce linear representations of surface groups in which every simple closed curve has finite order, but where a prescribed non-simple loop has infinite order. As a corollary, I will show how to produce covers of surfaces where the integral homology is not generated by pullbacks of simple closed curves on the base. This talk represents joint work with R. Santharoubane.