

## **Teichmueller polynomials for free-by-cyclic groups and clique polynomials of digraphs**

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The subject of this talk is joint work with Yael Algom-Kfir and Kasra Rafi, where we generalize McMullen's definition of Teichmueller polynomials for fibered 3-manifolds to the context of automorphisms of free groups. The underlying ideas are 1) just as with fibered 3-manifolds free-by-cyclic groups define families of automorphisms of free groups with related dynamics, and 2) the expansion factors of the automorphisms depend only on simple combinatorial data coming from global properties of the free-by-cyclic group.