



## ALGEBRA DAY ON THE HUDSON

---

Jennifer Taback

Bowdoin College

*A Solution to the Conjugacy Problem for a large class of one-relator groups.*

Saturday, December 7th, 2024

*Abstract:*

In this talk I will introduce ongoing work (joint with Bob Gilman and Alden Walker) whose goal is to show that any one-relator group whose relator is a commutator is biautomatic and hence has solvable conjugacy problem. This would answer a question of Baumslag asking whether groups of this form are necessarily automatic. Our arguments rely on a method of proving a group is biautomatic introduced by Gilman which is based on ideas from small cancellation theory. In applying Gilman's techniques, we take advantage of the symmetry in the commutator relator. I will outline our results to date and provide an overview of the remaining steps in the proof of our theorem.