



The Math/Stats Colloquium  
Department of Mathematics and Statistics  
San José State University



## Naomi Andrew

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*Automorphisms of  
Free-by-Cyclic Groups*

WED SEP 13, 2023, MH320

**Abstract:** The symmetries of a shape, or a graph, or  $n$ -dimensional space, or indeed any mathematical object, form a structure called a *group*. These groups have become objects we study in their own right, both algebraically and by using the properties of objects they act as symmetries on. Of course, as mathematical objects they have symmetries of their own: these are known as their automorphisms. I will discuss the ideas and objects we can use to study groups and their automorphisms, introduce the class of free-by-cyclic groups, and present work (with Armando Martino) on their automorphisms.

*Background:* One semester linear algebra.

**About the speaker:** Naomi Andrew received her PhD from the Univ. of Southampton in 2021 and is now a postdoc in the Mathematical Institute at the Univ. of Oxford. Her research is in geometric group theory: she enjoys working with group actions on trees and understanding automorphism groups, and especially both at the same time.

SNACKS IN MACQUARRIE HALL 331B AT 2:40PM  
TALK STARTS AT 3:00PM

For more information, see our full schedule at:

<http://www.timhsu.net/colloq/>