



## ALGEBRA DAY ON THE HUDSON

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Filippo Calderoni

Rutgers University

*Groups, orders, and classification.*

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*Abstract:*

In this talk we will survey some recent results about left-orderable groups and their interplay with descriptive set theory. In particular, we use Borel classification theory to describe the complexity of spaces of left-orderings modulo the conjugacy action. Then we will discuss how our results are related to a central open problem in geometric topology, known as the L-space conjecture.

Most of the results presented here are joint work with Adam Clay.