



# GROUPS, LOGIC, AND COMPUTATION. GAGTA-2025

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*Homeomorphism groups of manifolds through logic.*

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*Abstract:*

I will discuss applications of model theory to the study of homeomorphism groups, motivated by some concrete open questions in the theory of group actions on manifolds. I will discuss first order rigidity, complexity of theories of groups of homeomorphisms, and questions at the interface of set theory and the first order theory of homeomorphism groups.

This talk will discuss joint work with Sang-hyun Kim, J. De la Nuez González, Christian Rosendal, and James Hanson.