

Geometry, Topology and Dynamics Seminar

Left orderable groups that don't act on the line

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Abstract: The study of left-orderable groups has deep connections to topology, geometry and dynamics. A well known and very useful tool is the fact that all countable left-orderable groups embed in the group of homeomorphisms of the line. Uncountable groups act on ordered spaces also, but which ones act on the line turns out to be an interesting question.

In this talk, I'll present an example of a natural (though perhaps surprising!) left-orderable group that doesn't act on the line. The proof provides a nice showcase of techniques for understanding ordered groups and their actions, ranging from hands-on dynamics to bounded cohomology.

Monday, March 16 at 3:00 PM in SEO 636
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