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Around first-order rigidity of Coxeter groups.

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Abstract:

A finitely generated group G is said to be quasi-axiomatizable, or first-order rigid, if any finitely generated group that is elementarily equivalent to G is isomorphic to G. Coxeter groups are not first-order rigid in general, but I will explain that if one only considers groups generated by finitely many torsion elements, then in some cases one recovers a weak form of first-order rigidity. I will also address the question of whether the property of being a Coxeter group is preserved under elementary equivalence among groups that are generated by finitely many torsion elements.

This is based on joint work with Gianluca Paolini.