

## Geometric and Asymptotic Group Theory with Applications 2016

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## Permutational Thompson's groups

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## Abstract:

Permutational Thompson's groups are those groups of the Thompson family where elements include a permutation, as in the groups T and V. Metric properties of Thompson's group V are left to the classical bound found by Birget in the 1990s, with the metric bounded between N and  $N \log N$ . We will investigate whether this bound can be improved looking at the permutation of a given element. Also, the groups QF, QT and QV will be introduced as groups of quasi-automorphisms of the binary tree, and they will also be interpreted as tree diagrams with permutations (this time also on the nodes). Bounds for the metric will be computed too. Parts of this work are joint with Eric López-Platón and with Brita Nucinkis.