Title: Metric Distortion in Groups
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Abstract: A finitely generated group can be equipped with a word norm, which defines a (left) invariant geometry, unique up to quasi-isometry. If the group is a subgroup of a bigger ambient group equipped with a left invariant metric, the inclusion map induces another (coarsely smaller) metric. The distortion problem asks to compare the two metrics.

We give a small overview on what is known about this question for groups arising naturally in differential geometry and geometric topology and their applications, and we discuss recent results on distortion of subgroups of mapping class groups, handlebody groups, and the outer automorphism group of the free group, which exhibit similarities and differences between these groups. This is joint work with Sebastian Hensel.