

Extremal lengths for quasiregular mappings on Carnot groups

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A Carnot group is a simply connected nilpotent Lie group, whose Lie algebra admits a grading. There is a natural family of dilations on the Carnot group under which the metric behaves like the Euclidean metric under the Euclidean dilation. We study the behavior of families of horizontal curves under non-homeomorphic quasiconformal mappings on Carnot groups. We present some useful inequalities between modules of families of curves and their images under non-homeomorphic quasiconformal mappings.

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