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Anton Lukyanenko* (lukyane2@illinois.edu), Department of Mathematics, 1409 W. Green Street, Urbana, IL 61801. *Uniformly quasi-regular mappings on sub-Riemannian manifolds.*

The study of quasi-conformal mappings on sub-Riemannian (sR) manifolds, such as the Heisenberg group, is closely linked to the study of complex hyperbolic geometry. Quasi-regularity is a generalization of quasi-conformality that allows for branching. A mapping is uniformly quasi-regular if all of its iterates have bounded dilatation.

We show that: (1) sR lens spaces admit UQR mappings with non-empty branch set, and (2) every UQR mapping admits an invariant measurable conformal structure.

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